

Manufacturers RECORD

An Exponent of Americanism

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THE RED CROSS AND ITS HOLY WORK

By A. D. ALDERSON, Alexandria, La.

The present work of the Red Cross represents the supreme test of man's love for man. The Red Cross work is the epitome of personal service. In the response to this appeal the souls of America will be laid bare. This is the great instrumentality for the relief of pain and death. It is the Goddess of Mercy, ministering unselfishly to a torn and bleeding world.

The antithesis of this is the military clique of Germany, headed by Wilhelm the Murderer.

Were I able to draw a picture of the Kaiser, concisely portraying his individuality, it would be a Demon marching through Europe, the brand of Cain on his forehead, the breath of Hell in his nostrils; in one hand a bloody sword held on high, and in the other the heart of a child. This bloodhound is running rampant over Europe, the smirch of damnation on his soul, and with murder his fell purpose. He is committed to his mad orgy, and the protest of all civilization has not stayed or altered his purpose.

We, therefore, have the choice of actively supporting the Red Cross in its humane efforts, or, by our indifference, contributing to the success of the Kaiser's work.

The one is gloriously constructive, the other infamously destructive.

Your response will show which you prefer.

On August 2, 1776, Thomas Jefferson and his colleagues signed the Declaration of Independence, guaranteeing to the people of this great country freedom of thought and action. On April 6, 1917, Woodrow Wilson signed a similar declaration of independence for the whole civilized world. America signed solidly with him. Carlyle said, and this has been accepted by all democracies, that the rule of the majority is the fundamental principle of civic liberty. Practically the whole world has joined hands in this holy warfare to prevent the prostitution of liberty and the institution of the rule of the sword.

The Kaiser maintains that "might is right," and proposes to enforce his perverted ideas by a rule of ruin and a reign of terror. Christ said: "Not by might, nor by power, but by my Spirit shall the World be ruled."

History repeats itself. Attila the Hun ran wild on a murderous assault on Europe, and went the way of the sons of Hell. The Kaiser will go the same way. Might is not right and the rule of ruin shall not prevail. Every man is his brother's keeper. If there is a Deity, if there is a God in Heaven, the Germans cannot win.

But God works through man as a free moral agent. He expects us to do our part, and every man, woman and child will be held to account, in the final judgment, for what he or she has done to help preserve civilization and to assist in the triumph of Christianity over Atheism. German writers and thinkers, notably Kant, Trietsche and Schopenhauer, have for years been propagating Atheism under the guise of science, in an attempt to justify their infamous and murderous personal and national instinct, because it could not be made to conform to the charitable and humane teachings of the Man of Galilee.

Hypocritical and rapacious by nature, Germany lulled the World to sleep with the melodious strains of Beethoven, Mendelssohn and Handel, and the rhetorical cadences of Von Bethman Hollweg and Kuehlmann, and woke it to a sudden realization of her infamous intent, with the diabolical "song of hate." The true nature gained the ascendancy in the crucial test—and this is what we fight today.

Shall we who cannot fight and who remain safely removed from the field of carnage fail to do our small part?

Shall we sell our manhood, our honor, yea, our very souls, for a few paltry dollars?

A Red Cross slacker is a moral as well as a civic slacker, and we may be well assured that upon the head of every individual who fails in his duty in this war—fails to support our gallant fighting forces, and fails to contribute to the succor, comfort and treatment of our bleeding and dying sons—upon the head of every such one the judgment of Almighty God will be visited.

This war is a Holy war, and, in all the history of the ages, is the supreme test of our moral stamina and of human integrity.

With the love of humanity, with the love of country, with the love of home, let us therefore be inspired to lay aside all selfish considerations and sacrifice to any extent to give to this cause.

Let us wash our souls of all self-reproach before it is too late.

If honor is to survive dishonor, if morality is to prevail over immorality, if civilization and the pursuit of happiness are not to be supplanted by barbarism and rapine; if integrity, and not murder and outrage, is to be the standard of manhood—then we must, individually, do our duty in carrying on the war. To this task we have been appointed and to this issue we should address every ounce of our strength and determination.

The necessary money for other war work can be provided by taxation and bonds, but the support of the Red Cross work depends not upon our industrial or constructive potentialities, but upon that higher and better part of our nature—the heart and soul of man.

We cannot, WE WILL NOT, as Americans, stand idly by as our gallant men are led to the slaughter, and bear the reproach of their cries for aid and comfort.

The call of pain and suffering from the darkness of No Man's Land shall be answered.

We MUST do our duty to the Red Cross, and DO IT NOW.

BETHLEHEM STEEL COMPANY

IRON AND STEEL PRODUCTS

GENERAL OFFICES:

SOUTH BETHLEHEM, PA.

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MANUFACTURERS RECORD

DEVOTED TO THE UPBUILDING OF THE NATION THROUGH THE DEVELOPMENT OF
THE SOUTH AND SOUTHWEST AS THE NATION'S GREATEST MATERIAL ASSET

Trade-Name Registered in the U. S. Patent Office

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THE PACIFIST.

Long years ago there lived, 'tis said,
A kind of man (they still exist)
Whom people called a Copperhead.
They call him now a Pacifist.

When to protect the weak we fought,
The man who dared not to enlist
Was dubbed a Coward. Now we're taught
To say he is a Pacifist.

When one who coldly answered her
Who shrieked for help, "Do not resist!"
Men fiercely said he was a Cur-
But now he is a Pacifist.

In time of war one who should say,
"Yield to our dear antagonist!"
Was deemed a Traitor, but today
He boasts he is a Pacifist.

Then lower the flag and sheathe the sword,
While tortured hosts appeal in vain;
Accept the Kaiser's sacred word
Lest our distrust should give him pain.

Count Honor as the veriest dross,
Let holy Freedom's name be hissed,
And, sending for the Iron Cross,
Bestow it on the Pacifist.

WILLIS BOYD ALLEN.

Boston, Mass.

"NO MAN CAN BE A PRO-GERMAN AND A CHRISTIAN."

"In view of what has happened in Belgium and
Northern France and on the high seas, no man can
be a pro-German today and still be a Christian.
If there are any people in this country in the
churches whose sympathies are with Germany they
should have their names removed from the rolls of
the church until such time when they can come
back in sack cloth and ashes and repent," said
Rev. J. Wilbur Chapman, D.D., LL.D., moderator
of the general assembly of the Presbyterian Church
of the United States in an address at Houston,
Texas.

In further discussing the subject, Dr. Chapman
said:

"When they sank the Lusitania they invaded our
homes. Before they invade our territory I hope
my wife, my two daughters and my granddaughters
will be dead."

To both of these statements from one of America's
great religious leaders every man in America should
say amen and amen. Any pro-German as a member
of any Christian church is a disgrace to that body,
for every pro-German is a copartner in sympathy,
if not in deed, with murder and outrage and pillag-
ing and every other vile crime.

To Limit the Work of Railroads in Industrial and Agricultural Activities Would Be to Limit the Nation's Power to Fight Germany, and to Feed Itself and Its Allies.

Georgia & Florida Railway,
Augusta Southern Railroad.

Valdosta, Ga., May 10.

Editor Manufacturers Record:

In the issue of May 9 MANUFACTURERS RECORD, ap-
pearing in its foremost columns, that article headed
"Railroad, Industrial and Agricultural Development
Work in South and Southwest Essential to Nation's
Life" is certainly one of the most appropriate and
timely articles dealing on our own nation's welfare
that has appeared in many a day.

Staggering on crutches, as many of the short-line
roads are now doing under present Government con-
trol, hoping naturally for relief which will eventually
be demanded by the South's chief developer, namely,
the farmer, it seems that the Railroad Administration
will most certainly speak quickly and loud in making
it known that agricultural development will continue
as in the past, and even on broader lines.

The homeseeker public of this day and date are de-
pending on the railroads for honest information. With-
out aiming to reflect on the real estate man, I say it
is a known fact that the homeseekers in the great ma-
jority ask the land departments of the roads for their
direction, and not the real estate man.

If the Government sees fit to eliminate the land-
development departments of the railroads of the United
States, it will immediately knock the props from under
the homeseeker.

Our own short line has been doing some strenuous
campaigning during the past year. Not until summer
and fall of this year can we expect results, because no
good farmer moves at this season.

We certainly feel gratified at the MANUFACTURERS
RECORD's step just taken. It means as much to the
South as does our help to our allies in war.

By the expenditure of even larger sums of money,
why not save our own country from agricultural de-
struction as well as the lands of Europe from the
brute? Ours is a peaceable strife to save and to help.
Let us continue.

I hope to see a lot more appear in the MANUFAC-
TURERS RECORD. You always are on the right side.

W. E. FRENCH,
General Industrial Agent.

We are glad to publish the foregoing article from
Mr. French, who states the case clearly, but there
is an even broader point of view from which to
study the situation than that of the South and
Southwest. If the continued work of industrial and
agricultural departments of Southern and South-
western railroads benefited only those sections and
in any way whatsoever lessened the nation's power
to feed and to fight, we would heartily oppose any
further work by these roads in behalf of the devel-
opment of their territory.

This question, however, is infinitely broader than
the South and Southwest except as they are
vital factors for creating enlarged production of
food and of munitions and of other things without
which we cannot win the war.

The halting of this work would be disastrous to
the nation, and if the Railroad Administration does
not grasp the tremendous importance of co-operat-
ing with the railroads in their industrial and agri-
cultural work, it will have utterly failed to realize
the seriousness of the situation and the necessity
for continued work.

The MANUFACTURERS RECORD is ready to go to the
extreme in every respect of putting aside the non-
essential things and of insisting that the nation
shall concentrate its entire activities upon things
which help to win the war. From this viewpoint
alone there is a supreme necessity for continuing to
make known to the country the enormous possibili-
ties in the raw materials of the South and South-

west and in the great agricultural capabilities of
this section.

A limitation put upon the development activities
of the railroads which have been carried on so suc-
cessfully for years would be a limitation upon the
nation's power to fight, and to feed itself and its
Allies.

One of the greatest influences which has been
brought to bear upon the utilization of the raw
materials of the South has been the display of
Southern resources made at the National Chemical
Exposition during the last two or three years. This
exposition, which is annually visited by many thou-
sands of the foremost chemists and manufacturers
in the United States, has proved a great source of
creative thought and constructive work in the bring-
ing into existence of industries which are as essen-
tial for war as for peace.

So much impressed were the railroads of the
South, which last year had large exhibits, that most
of them promptly made engagements for still larger
space for this year. But we learn that, by reason
of Government control, the railroads are now dis-
posed not to attempt to make any exhibits at the
exposition.

This would be a blow to the country. The South
and Southwest would suffer by reason of the halt-
ing in their development, but the individual welfare
of these sections is of small importance unless that
welfare contributes to the nation's ability to win
the war; and looked at from this viewpoint, the
utilization of the raw materials of the South and
Southwest is vital in the winning of the war. It is,
therefore, of the utmost importance that the States
and commercial organizations in the South should
immediately give attention to this matter and bring
to bear their influence upon the Railroad Adminis-
tration not only to authorize, but to urge the rail-
roads of the South and Southwest to make even
more comprehensive exhibits than they have made
in the past, and to continue even more aggressively
their agricultural and industrial work.

This exposition is a great central point where the
resources of raw materials for chemical production,
for iron and steel, and a thousand and one other
things meet the expert and capitalist, and anything
which minimizes the ability of the railroads to carry
on this work would be most unfortunate for the
whole country and would seriously lessen our power
to hasten the day for the winning of the war.

In the meantime every commercial organization
in the South and Southwest and city and State gov-
ernments might well afford to take up this work
immediately so as to make certain that the South
will be adequately represented if the railroads
should have to fall down by reason of unwise advice
from the National Government.

There is a disposition in Washington to take the
ground that the railroads, now being under Govern-
ment control, have nothing more to do with indus-
trial and agricultural development. This position
is akin to the mistake which was made in Washing-
ton at the beginning of the war, which for a time
threw a damper upon the wisdom of building good
highways. Unfortunately, mistakes of this charac-
ter do an immense amount of damage through the
disorganization of working forces before those in
authority come to realize that there are some
things, such as good highways and the expansion of

railroad activities for industrial and for agricultural development, just as essential as the very existence of the railroads themselves in the winning of the war.

As matters now stand, the Railroad Administration definitely discourages any activity on the part of railroads to continue their industrial departments, and these splendid organizations, built up by the untiring labors of the railroads, are being abandoned at the behest of the Railroad Administration to the tremendous injury of the whole country. Every section of the country where broad-minded railroad work has been done will suffer unless this most unwise policy is changed, and the whole nation will of necessity, therefore, be the sufferer.

WILL THE PRINCE OF PEACE AFTER GETHSEMANE SURRENDER TO THE VAUNTING HUNS?

AS clearly expressing the reason why no peace can be made with an atheistic Germany which is crucifying humanity upon the cross of war, and why there will never be peace between righteousness and sin, the Manufacturers Record prints the following extracts from a striking Easter sermon by the Rev. Archer Boogher, rector of St. John's Episcopal Church, Fayetteville, N. C.:

"O death, where is thy sting? O grave, where is thy victory? The sting of death is sin, and the strength of sin is the law. But thanks be to God, which giveth us the victory through our Lord Jesus Christ." 1 Cor 15: 55-57.

Any kind of message which bears a note of victory is most acceptable at this time. Any ray of light and hope that can be thrown upon the desperate situation today is eagerly received. Any encouragement which you or I can offer in the present crisis is a most imperative duty. Any cheer and comfort which we can give through these anxious days and hours it would be a shame to withhold.

There is, thank God, just the message we need in the truth of Easter; and the full and hearty service this morning, with its appropriate setting, has given such a beautiful and inspiring expression to it. But ought we to be indulging in any bright and joyful program when we think of what is going on in France? Is it right to appear so light-hearted and free, when our men are facing death in such numbers? Ought we not rather to be mourning? It seems almost a crime to be happy, but it isn't, I hope, for any selfish pleasure and pastime that we have been singing these exulting hymns and anthems. We have been praising God in them. We have much for which to be thankful, and we can't express it in any melancholy way. We have been singing the praises of our Savior who has overcome death, not only for ourselves, but for the brave boys over yonder. We are glad for them and we rejoice that such strength and grace has been given them through the Resurrection, and that they can meet the last enemy with even a smile on their faces and a song on their lips. This is a victory which none can wrest from them. This is a triumph which is beyond any success in battle. It proves, too, that God has not forsaken His world, when everything looks dark, for, if our men can find Him in the trenches and can feel confident of His presence and approval, and with their last breath can commit themselves and their course into His hands, believing that they have not lived and fought in vain, what right have we to lose heart and waver in our purpose, and slacken in our service, or question for a moment the ultimate outcome of a holy war?

Is the Prince of Peace, after the struggle at Gethsemane and the triumph of Easter, after all the vain efforts of world empires to supplant His Kingdom, is He going to surrender now into the hands of the vaunting Huns and permit a vain and merciless tyrant to dictate and control the policy of the world? I can't believe it, because of the faith I have in the character of the Almighty.

If the Prussian cause had not been so inhumanly planned and carried out, I might feel more despondent over their marvelous accomplishment, but the very viciousness of their methods keeps me hopeful. Their conduct has already lost for them the sympathy and good-will of the world. Those who tried to think well of them have long since given up. And the things that have turned the nations against them cannot hold the favor of a just and merciful God. They still pray to Him most vigorously, yet they keep right on with their infidel practices. Yes, the merciful Father will overlook and pardon many of the weaknesses and shortcomings of this war, but can He ever forget and pass over the record in Belgium? Will He prosper the men who did it? His long and strange silence in the matter is no evidence of His approval. He was silent once before when it seemed as though He ought to have declared Himself sooner. He allowed the enemies of the truth to go much further than they have gone today. But at last He did speak, and ah! what a triumph it was for right and humanity.

Isn't it strangely significant that our enemy should have fixed upon Holy Week, the time of our Savior's Passion, for the launching of what they call their "big

drive?" This is the climax of their blundering stupidity. Do they wish to flaunt their German Kultur right in the face of Calvary's Cross and seek to discredit its teaching by the power of their inhuman efficiency? Is this to be the testing out before the world of the two systems? Let them drive on with their sacrifices to Baal! God is not dead.

The fact that the holy season of Easter was selected above all other times for the greatest display in history of brute force, the power which had failed so utterly before the Cross—this, it seems to me, is a most prophetic sign.

The German nation will not always be proud of the deeds of the past days. She will not always wish to remember the record of the Passion Week of the year 1918, which will be recorded against her; and every return of the season will bring to mind a most unholy association. If it had even taken place at some other time, the picture would not have shown so black for them by the contrast.

Today the Son of God is being crucified afresh upon the battlefield of France. He is agonizing over the struggle more earnestly than we are. Let us not lose sight of that fact, for it not only gives us the highest incentive we can have for keeping diligently at it and for making every possible sacrifice, whatever the odds may seem, but it should make us feel also that there can't be failure. Is the cloud over Europe today any darker than that which hung over Calvary? The same viciousness and cruelty arrayed themselves there, and it looked for awhile as though they had conquered. They were just as arrogant then, and boastful and defiant; and the Righteous Father, to all appearances, seemed just as coldly silent. But He did speak in time. The awful stillness and suspense were finally broken. His power at last shook the earth and rent the rocks and opened the grave and drove the enemy to flight and to the refuge of another lie, and Christ came back in all the glory of the Resurrection, to assure men for all time that nothing can prevail against the powers of a righteous life and a holy cause.

Let us not despair, then, because the Father has seemed to be silent. He who has overcome death can surely deliver His people out of the hands of those who have denied His Cross and violated the purity of His teaching.

The only thing for us to feel anxious about today is the character of our own faith and the extent of our devotion to the great cause. If these are feeble and half-hearted; if there is no real spirit of sacrifice in us; if we are following so far off that no one can tell where to find us; if we are going to keep on coddling these untouched bodies of ours, while others are laying theirs upon a bloody altar, warning and feeding them when the world is crying for bread, indulging in pleasures that cost money, when the Government is calling for every dollar we can spare, and what is meaner still, stinting for ourselves, rather than for our country, laying up treasure for our comfort and ease after the war is over; if this is to be the spirit of our service, do you think God is going to give us the victory?

A good cause weakly and cowardly supported is as unworthy of success as a bad one. It is a poor and pitiful kind of sentiment that will allow us to fold our hands today and bury our purses and hide behind every sort of an excuse for inaction, and then talk about the awfully wicked deeds of the Germans which God will surely punish. If we can claim any right to God's favor in this conflict it must be based upon the united loyalty of our people as much as in the merits of the cause.

Do you think the brave boys at the front are fighting our battles for us and defending our liberties? They are fighting their own, and we shall have to fight ours, or there won't be any victory so far as we are concerned. God will give them the victory. He has already done that in many cases, as is evidenced by their splendid deaths; and others will come home filled with the blessed consciousness that they have done their duty to their country and to their Master, to their flag and to their cross; and there will be many to rejoice with them who will have just as fine and noble records as they have; but what can be said of those who have lurked behind among the sheep folds to hear the bleating of the sheep, and have shirked their responsibility and missed the grand opportunity of their life? Will there be any victory for them or any sense of freedom? There can't be any. There can't be any peace or satisfaction with a guilty conscience. The knowledge that they have made no contribution to the splendid result for which others have lived and died will be more galling to them than the tyranny of any foreign yoke. When the battle is over and won, will they presume to fall in behind the men who have seen the hard service and try to share their victory? Will they dare to lift their little piping voices with the glad songs of triumph? What a hollow ring they will have, and how evident it will be that they have lost caste and favor in a just world.

A most pitiable individual after this struggle is over will be the slacker, who had tried to save his life and substance while others were freely giving theirs. There won't be any place for him, nor any chance to enjoy the evil fruits of his self-seeking, in the new order of things, and it will be realized too late that it is more blessed and profitable to give than to receive. The only way to save one's self is by saving others, and the only way to derive any benefit from the Cross and from the merits of the life that was so freely offered upon it is for us to take up our own individual cross and bear it after Him. There is no salvation anywhere without personal sacrifice. We must die with Christ in the same kind of service for others if we are to live with Him in the glory of His resurrection.

GERMANS EXTRACTING GOLD FROM TEETH OF FRENCH PEOPLE.

FOR the last degree of cruelty in little things, the most interesting statement that has come to the MANUFACTURERS RECORD about Germany's methods is in a letter from Mr. Thomas Warren Brittain of Baltimore, who is in the Trench Mortar Battery in France. In the course of a letter to his mother, Mrs. Samuel L. Brittain of this city, referring to some of the atrocities of the Germans, he says:

Why, they even took the fillings out of people's teeth!

When a nation descends to that degree of refinement in cruelty that it extracts from the teeth of living people the filling, in order to secure the gold thus embedded in human teeth, it displays a kind of depravity which probably is as fully indicative of its character and its desperateness as any of the vile crimes committed against the persons of people in the overrun sections of France and Belgium.

In his letter to his mother Mr. Brittain, writing from a town in France which had been held by Germans for 29 months, said:

In that time they forced the people to live in the cellars, while they enjoyed the luxuries of upstairs. When they were finally driven out they took everything the poor people had, and the lady I was talking to last evening had to cut potatoes for candle holders, as they had even taken the candle holders.

And then he adds:

Why, they even took the fillings out of people's teeth, and they in many instances entirely destroyed the houses. I think they are being paid back, as I just heard today that the English killed or took prisoners over 200,000.

The editor of the MANUFACTURERS RECORD knows young Brittain very well, and can vouch for his reliability.

Sometimes a little sidelight like this, which comes in a family letter, illuminates the whole situation and gives an insight into German character more clearly than even the proofs which have been published of their atrocities.

KEEP THE FIGHTERS FIT TO FIGHT.

AN inquiry has come from a student in a Southern college asking information as to how college students, especially those graduating this year, can be of service to the country both in the prosecution of the war and in the reconstruction period that will follow.

The opinion strongly prevails among officials in Washington and elsewhere that the best service that can be rendered at the present time by students leaving school lies in farm work. There is desperate need of man-power for making and gathering the crops, upon which everything depends. The cry is universal that a shortage in farm labor threatens to curtail the size of this year's food crops. Without enormous supplies of food, both for home consumption and for the armies of America and of the Allies in the war, the power of the nation to successfully carry on the war and bring it to an early conclusion will be weakened.

The Department of Labor is inaugurating an extensive campaign to enlist the boys of the country for farm labor. This reserve force is not for small boys, but for the older ones who are capable of doing a man's share of labor on the farm.

The students of the Southern colleges, and all colleges for that matter, can do no more patriotic work, therefore, than to voluntarily place their services at the hands of farmers. The present job we have on hand is to win the war. Problems of reconstruction after the war do not require special attention at this time. Our only job now is to fight and to keep the fighters fit to fight.

A WAR-TIME TOAST.

Here's to the blue of the wind-swept North
When they meet on the fields of France,
May the Spirit of Grant be over them all
As the sons of the North advance!

Here's to the gray of the sun-kissed South
When they meet on the fields of France,
May the Spirit of Lee be over them all
As the sons of the South advance!

Here's to the Blue and Gray as one
When they meet on the fields of France,
May the Spirit of GOD be over them all
As the sons of the Flag advance!

—E. L. Mayo, in Buffalo Courier.

The Nation Calls Its People to Our Mighty Task at Home and Abroad.

LET US REMEMBER RUSSIA.

The Russians meant well.

But they took time to talk while the house was burning!

Of course the Kaiser encouraged them.

He knew that would be the easiest way to lick them!

We must not let him play the same trick on us.

The foregoing is from a large placard issued by the United States Committee on Public Information, which is being sent out with the request that it be placed in conspicuous positions in factories and elsewhere. We would commend as vigorously as possible the truth of these statements. Germany is as aggressively working to disorganize this country as it worked to disorganize and destroy Russia, and that is our greatest danger.

Bolshevism is disguised in many forms. Sometimes it appears in the shape of so-called pacifists, which should be another name for renegades and traitors and German-paid workers; sometimes in newspapers, which do not apparently realize the pro-German trend of some of the things which some of them are publishing, or, if they do realize it, are guilty of crimes which should send somebody to the firing squad; sometimes these pro-German activities to disorganize and destroy this country are so disguised that even the elect may at times be deceived. But whenever any man or woman utters one word in favor of Germany, in favor of peace with Germany until that country has unconditionally surrendered, or speaks one word which tends to discredit this Government or our allies, or the Red Cross activities, or to weaken the determination of the nation to throw into this struggle for civilization the utmost power of its fighting strength, there is seen and felt the power of the pro-German Bolshevism, even though the man or the woman who is thus guilty may not always know that they are being used by Germany in the effort to destroy this country.

Germany would prefer to destroy America in the way that it has practically destroyed the mighty nation of Russia than to destroy America on the battlefield, because could Germany bring about this socialistic, Bolshevistic anarchy which rules and ruins Russia, Germany would have won the contest and destroyed the spirit of America. The soul of the nation would be dead.

It behooves us, therefore, to remember Russia; to remember that though the Russians meant well, they were deceived and trapped, and that even if Russia ever comes back as a nation it will have to be through fearful suffering and at a terrific cost.

Germany has more ways of deceiving the people than Satan himself. Germany tries to wear the livery of Heaven in order to serve the Devil—which is serving itself, since Germany and Hell are synonymous terms, though really we owe an apology to Hell for such a comparison.

There is only one way to prevent this nation, with all of its glorious history of freedom, this nation with all of its religious and civil liberty, this nation for which our fathers died, this nation which has stood for the highest expression of man's ability in self government, from being completely destroyed by the destruction of our armies and our navy and the blotting out of our great cities, and the murdering and the outraging of the people of

the land, bringing suffering manifold more than Belgium has endured, and that way is by a military victory which will prove to Germany that the task to which we have been called will never end until in Berlin and Vienna our armies, standing with those of our Allies, have forced the death penalty upon those who have created this world war and have placed on Germany and its allies a financial penalty which will to the utmost power of their ability for the next half century force them to realize the meaning of their accursed war.

Anything short of this would be a victory for Germany. Anything short of this would mean but a breathing spell for Germany to prepare for another war, utilizing in this second war all the power of the rich countries which it has overrun, and the vast resources of Roumania and Russia, and the great populations of these countries which it is now enslaving, and which ultimately will be made to fight Germany's battles unless we destroy Germany's power in the holy war in which we are now engaged.

We need not seek to minimize the magnitude of the task, nor to encourage ourselves with the thought that this war will be a short one. Rather should we fix our thought upon the determination to win, whether it means a five-year or a ten-year war, and give ourselves to the task, determined that rather than fail to carry the program through to the final end we would fight until the last American was dead. Better, infinitely better, would be death for the men and women of America than the domination of this country by Germany or the pro-Germans, which, under one disguise or another, are constantly seeking to bring about in America that Bolshevistic, anarchistic collapse such as we have seen in Russia, one of the saddest records of a great nation in all human history.

Our task is to fight. Our task is to develop the fighting strength and the fighting spirit of the nation to the last ounce of strength, and to throw into this fight the ardor and enthusiasm with which a man would fight the midnight murderer who was strangling his wife and children. Our job is to fight with all the power of manhood and womanhood and all the help which as a nation battling for civilization and for Christianity we can justly ask of Almighty God. We should fight until Germany, on its knees, surrenders unconditionally to the Allied armies as they march, millions strong, through Germany and Austria and Turkey, and give to those countries a realization of what it means to have the power of right supplant Germany's curse of night, and prove to them that right is mightier than might without right.

On with the fight! Germany's accursed barbarism of might must be destroyed!

AMEN AND AMEN!

BASED upon the revelations published in the MANUFACTURERS RECORD of last week, made by August Thyssen of Germany as to the definite plans which had been under way for years prior to 1914 to bring on the European war for the aggrandizement of the military clique and the personal enrichment of the business leaders of Germany, the Spartanburg Herald says:

This and other documents now coming to light disclose to our gaze the most cold-blooded, avaricious and heartlessly cruel plot against mankind that ever could have been framed in the dreams of criminal genius.

And in closing a lengthy editorial on the subject, says:

"America's sword must never be sheathed till the men who did this thing are forced to unconditional surrender in order that they may be taken and executed. They must die. From the soil of far-spread hills and valleys the blood of butchered millions cries day and night for vengeance. Silent deserted cities in blackened ruins demand vengeance. The spirit of humanity, shocked and alarmed past utterance by the awful crime, can never rest till its perpetrators breathe no more."

AWAKENING AMERICA TO THE ISSUE OF LIFE OR DEATH.

Baltimore, May 11.

Manufacturers Record,
Baltimore, Md.

Gentlemen—Enclosed is certified check for \$500 to cover 200 six months' subscriptions to the Manufacturers Record, the names for which will be sent you later.

In making this deposit I am representing myself and a group of friends who believe that, could every citizen of the United States come under the inspiration of the vivid gospel of ACTION which you are preaching, the war with all its horrors, perpetrated and yet to come, will be WON in one-half the time.

Your paper, as "an exponent of Americanism," is, in my opinion, doing a work second only to that of the Government itself, praising where praise is due and just as frankly pointing out and demanding correction of weak spots where such, in your judgment, occur.

"The supreme duty of the nation is to FIGHT," and the example of a great technical and industrial journal focusing almost its entire editorial strength on the business of VICTORY is, to my mind, worthy the emulation of every business man in America.

Respectfully yours,

EDWARD A. DARR.

The foregoing wholly-voluntary letter came as a great surprise to the MANUFACTURERS RECORD, for there had been no intimation from Mr. Darr or anyone else that he and those associated with him in making this subscription had ever even considered such an idea. The MANUFACTURERS RECORD accepts this subscription with profound recognition of this tribute, as of many letters of commendation which are coming to it, as an expression of appreciation of its effort to make known to this country the tremendous issues at stake.

We realize with an overwhelming sense of responsibility to God and man the work which for three and a half years we have been trying to do.

There cannot possibly be on the part of those connected with the MANUFACTURERS RECORD any thought other than one of responsibility. To this task every man and woman connected with this publication is devoting the utmost energy of his or her life, for we must proclaim the everlasting truth until it has been burned into the very brain of the people of the whole country that we are in a great struggle for actual existence. By the side of this contest all our wars in the past were as child's play. In comparison with this war all the issues involved in the Revolutionary War and in the Civil War were less than a grain of sand against a mountain range.

Before the terrific issues which now face us, life and all that it holds that is dear to men and women, civilization and all that we have known through the ages of the power of the Gospel of the risen Christ, are at stake.

Germany, moved by the power of evil itself, stands today the accursed agent of the forces of evil to overcome the forces of right. Only through the power of the Almighty's help can we conquer. Vain will be our armies and navies and all the work that we are trying to do; vain will be our hope of the safety of womanhood and of civilization and of Christianity itself unless, looking to the Almighty for guidance and help, we are able to destroy Germany's power for evil and crush Germany's determination to conquer the world.

If through a full realization of this situation the MANUFACTURERS RECORD can be helpful in awakening the nation to the task, it will feel that it is doing a work of infinite importance, but it goes forward with an overwhelming sense of the awful world-tragedy of the hour.

To express to Mr. Darr and those who are associated with him (and we have not the slightest idea who the others are, for this check was received just as we are going to press, too late to make inquiries) our appreciation of this enthusiastic commendation of the MANUFACTURERS RECORD would be useless. We accept this commendation as an expression of the determination of the business people of this country to throw into this contest every ounce of strength in every way in which they can make their influence felt.

WORTHLESS, COSTLY CURS VERSUS STARVING WOMEN AND CHILDREN—WHICH SHALL IT BE, SHEEP OR DOGS?

THE world shortage in meats grows at an alarming pace. Famine, gaunt, treads fast upon the heels of population. The supply of wool for clothing, and especially for our soldiers, steadily diminishes in proportion to increasing needs. We face a desperate food and wool shortage, becoming every day more acute.

Nevertheless, legislators in Congress and in States are failing to adopt the only measure which can possibly bring about increased output of wool and of mutton. Worthless dogs roam the land, killing sheep and making it well-nigh impossible for increased sheep production, and without more sheep there will be less wool, fewer clothes to wear and less mutton to eat.

The situation is illustrated in a letter from F. B. Enochs, Fernwood, Miss., manager of one of the biggest farms in the State, in which he says that they sold all of their sheep, preferring to "cash in" on sheep rather than try to raise sheep under present conditions, and he adds:

It is strange, but true, that with wool so scarce and spring lambs selling at from \$18 to \$22 per hundred-weight and wool at approximately 60 cents and up, we cannot get State and county legislation that will permit us to raise sheep in Mississippi.

The sheep growers of Tennessee at a recent meeting unanimously expressed the opinion that the State and the nation alike should come to the relief of the industry with adequate laws for sheep protection, and the Lebanon Democrat reports that the prevailing sentiment that Federal aid should be sought is but an indirect commentary on the inefficiency of the State Legislature.

The Leader of Laurel, Miss., publishes a statement made by a farmer in Carroll county, in that State, urging the Legislature to pass a law to rid the State of worthless dogs. This farmer reports that he made a careful canvass of 36 square miles in order to get at the number of dogs, and he found that in that area there were 225. Based on this as an average for that State, he figures out that there are nearly 300,000 dogs in Mississippi. We are inclined to think that this estimate is rather too low than too high, and he estimates that a dog consumes enough foodstuffs to produce 250 pounds of pork, and that, therefore, the worthless dogs of Mississippi are eating food which if used for the raising of swine would add nearly \$15,000,000 to the pork products of the State.

These are but typical indications of the interest that is being aroused in the dog versus sheep question throughout the country; but until some tangible, vigorous work is done by Congress itself in the passing of a law fixing a heavy tax on dogs, sheep production will of necessity be limited. The dog roams from State to State. He crosses imaginary State lines, and is unfettered by the laws of his own State. Wherever he goes he is a menace to sheep and discourages sheep raising.

As a war revenue and a war food-increasing measure, Congress could well afford to pass a bill which would put a heavy tax upon every dog. The owners of pet dogs could pay a tax, while the worthless curs which curse the land with their presence would either be eliminated or else the tax which they produced would partly offset the heavy cost which they now entail upon the country by halting sheep industry. A tax upon dogs for the saving of the sheep business, for increasing wool production and meat production is not beneath the serious attention of Congress.

A campaign has been launched in Maryland by leading farmers of the State for the purpose of bringing the number of sheep in Maryland up to 1,000,000, or quadrupling the number now in this State.

At a meeting held a few days ago Dr. H. J. Patterson, director of the experiment station of the Maryland Agricultural College, reported that the Government has estimated that the average annual cost of a dog was \$34, and that as there are 25,000,000 dogs in the country, the cost runs into hundreds of millions of dollars for food, not counting the destruction of sheep and poultry. Dr. Patterson stated

that he had personally found that it cost as much to keep a dog as it did a dozen hens, and that one hen will lay on an average 10 dozen eggs a year, which was another way of stating the cost of dogs to the country.

Maryland has passed a law for taxing dogs from \$1 to \$2 each, and at this meeting of Maryland farmers Governor Harrington reminded those in attendance that it would depend upon the energy of county officials as to whether the law was rigidly enforced or not. This law provides that "any person may kill any dog which he sees in the act of pursuing, worrying, wounding or killing poultry or livestock, or attacking human beings, whether or not the dog bears a license tag." "Any unlicensed dog that enters any field or yard" shall under this law "constitute a private nuisance, and the owner, or tenant, or agent of the property may kill the dog without liability." Each county is to maintain a dog license fund, which is to be applied to reimbursing damage by dogs to any sheep, poultry or livestock.

This is a move in the right direction, and now if Maryland county officials and individuals will rigidly enforce this law, and see that all worthless roaming curs crossing the line from other States are promptly killed, a movement will have been started which may finally result in bringing about a national law for a heavy tax on dogs and thus for more sheep, which means more meat and more wool.

CALL OUR MECHANICS TO THEIR RESPONSIBILITY.

THE Boosters' Club of Tallahassee, Fla., is making a very active campaign against the most unwise and, indeed, iniquitous bill which is designed to encourage slackers in Government work. The soldier is held to rigid accountability for the use of time to the utmost extent of his ability, but many mechanics in Government work, as well as in private work, regard themselves as so superior to the soldiers that they are misled into becoming slackers through the false teachings of false leaders, and, therefore, are unwilling to have their honesty as to work and efficiency tested.

The Boosters' Club of Tallahassee has sent to Congressmen from that State the following petition which we are advised has been widely signed by leading business men in Florida. We heartily commend the effort of this organization and of any other organization or individual seeking to defeat the bill now before Congress in the effort to call our mechanics to their duty that they may not sell their souls for a mess of pottage, but give their support to war work as freely as the soldier must do.

This petition as sent from Tallahassee to the Senators and Representatives in Congress from Florida is as follows:

We, the undersigned citizens of Tallahassee and Florida, hereby urge you to use every means within your power to oppose the passage of the following provisions in the pending Naval Appropriation bill, viz:

That no part of the appropriations made in this Act shall be available for the salary or pay of any officer, manager, superintendent, foreman or other person having charge of the work of any employee of the United States Government while making or causing to be made with a stop-watch or other time-measuring device a time study of any job of any such employee between the starting and completing thereof, or of the movements of any such employee while engaged upon such work; nor shall any part of the appropriations made in this Act be available to pay any premiums or bonuses or cash reward to any employee in addition to his regular wages, except for suggestions resulting in improvements or economy in the operation of any Government plant.

We feel that the United States Government should be free to take any action which will speed up the work at the munitions plants, shipbuilding plants and various industries manufacturing war materials, of any and every description; and if it be necessary to stimulate production to offer any cash or other bonuses as rewards of merit and patriotism, this matter should be left entirely within the jurisdiction of the proper officials, who shall act only under the authority of President Wilson.

We deprecate any attempt, under whatever guise, to hamper or cripple the efforts of our Government at this critical time, and urge you, as true Americans, to stand by the President in this matter, and to oppose any bill which carries within its provisions any power whatsoever that can lower the efficiency and retard the speed of war preparations. The honor of our country must be backed by our every dollar and our utmost personal support.

ARE YOU AMONG THIS CLASS?

"GOD pity the man who in the years to come has to face the realization that he was a slacker in such a time as this!"

That is the closing sentence in a tremendously earnest appeal recently issued by the Advertising Association of Chicago to awaken its members to their individual responsibility in this momentous hour.

Through the centuries to come the men who go out from this land to stand between American women and children and the ruthless barbarism of Germany, to stand between the liberty of American life and the hell of German damnation, will be regarded as the heroes of the world.

Perchance the individual names of all of them may not be written in big letters across the pages of American history, but the spirit of these men will live and breathe in human history for all time to come as of men of immortal and undying spirit who caught the vision of a larger life and the supreme nobility which sacrifices that others may be saved. No duty to which mankind was ever called was more sublime than that which calls the American soldier to the battle front.

All that those of us who are left behind can possibly do to honor these men and to stand behind them is but as a breath compared with the supreme sacrifice which they are making.

The proudest emblem which any American father or mother will ever be able to claim is that of the service flag, which tells that some loved one is in the fight for civilization. Through the years to come these soldiers will be the heroes to whom every honest-hearted man and woman will gladly give tribute of profound respect and love. The narrow-visioned, small-souled men and women in America who prefer personal pleasure or personal comfort to duty, when duty calls more loudly than ever before in human history, will be slackers, who should be spurned with the utmost contempt by every right-thinking man and woman. These slackers will be those who failed in this hour of world-war in subscribing to Liberty Bonds, in helping the Red Cross, or the Y. M. C. A., or in personal sacrifice of lessening the waste and extravagance, or of outright giving of all that is in them to the great task to which we have been called.

And then there is that class of lukewarm people, with whom we would include the so-called pacifists and "conscientious objectors." It is of the lukewarm, neither hot nor cold, of whom God Himself has said that He will spew them out of His mouth, an expression that would indicate a loathing and contempt even greater than that against the outright sinner. Indeed, one can almost have more respect for the active, aggressive German than he can have for the slacker or the lukewarm man or woman of this country. However great may be the loathing and contempt or hatred for Germany and the murderous campaign of German soldiers, there must be a still greater loathing and contempt and hatred of men and women living in America who are lukewarm in these times which should call forth all that is good and noble in American life.

Are you physically, mentally, morally or financially an outright slacker or a lukewarm American? If so, read again the opening sentence of this editorial.

EFFECTIVE WORK BY ALABAMA'S CONGRESSIONAL DELEGATION.

THE successful launching of the great Muscle Shoals project recalls the debt due to Alabama's Senators, John H. Bankhead and Oscar W. Underwood and the Representatives from that State, with whom they co-operated in urging the claims of Alabama as the location for the great Government nitrate plant, greatest undertaking by the Federal Government since the Panama Canal. So effective and persistent was the work of Representative Edward B. Almon of the Eighth district, in which the Shoals are situated, that he gained special recognition from the President. When Mr. Wilson issued his order directing the War Department to begin the Muscle Shoals improvements, he sent to Mr. Almon the pen with which the order had been signed.

THE CURSE OF CAIN UPON GERMAN SEAMEN

[For bitter but just denunciation of German seamen and their murderous work, denunciation which fairly burns and scorches, and for a forecast of the unending enmity, loathing and scorn with which German sailors will henceforth be regarded, we have seen nothing to equal an article signed Nauticus in the Liverpool Journal of Commerce, and what Nauticus says will be the treatment of German sailors should be the treatment of all Germans everywhere on earth, until in sackcloth and ashes they repent and dedicate their lives to atonement for their nation's awful crimes.—EDITOR MANUFACTURERS RECORD.]

"Let there be no mistake about the depth of the feeling against Germany which all decent seamen entertain at this moment. It is fiercer than the worst storm that ever blew and as strong as the trade wind which comes from the southeast.

"There will be strange ships on the waves—vessels flying a flag which has been hidden in canals and backwaters, where dastardly deeds are plotted for close on four full years. They will outwardly look like other ships. To all appearances they will be honest ships, but to every seaman that was not suckled by a German mother or sired by one of the ravishers of brave Belgium they will be known as Scheussliche Schiffe, or horrible, abominable ships! They may fly the German flag in all its flaunting flashiness, but it will always be foul and bloody even in the pure sunlight of the Tropics.

"Against the deep blue sky of summer this flag will look like an old boot on a sacred altar; the very vault of heaven will be stabbed with shame when it swims into the light of day. No one will salute it; no cheery message from cheery heart will greet it as it passes; no eye will be turned upon it from the crow's nest without a curse; it will pass along the silent highways of the world like the murderer of a little child seeking to hide from justice. Dirty, foul, horrible and abominable, red with the blood of innocent women and children and brave men, even the cleansing ozone of God's great sea will not wash it clean in twice ten thousand years. It will stink in the nostrils of all mankind for ever and ever!

"To a clean, honest sailor the sea is like a mother. The British Seamen's Union knows all about the foul murders which have been committed by German seamen, and its members will see that the full price is paid for these awful crimes against humanity. Three so-called peace delegates have been trying to sneak away to America for some time past, but so far they have found it impossible to embark. Why? Simply because the British seamen say no. They would refuse to work a vessel if pacifists and others of like type were on board.

"This shows the spirit, and if further evidence were needed it can be found in the recent utterances of J. Havelock Wilson, who has stated in public that the merchant marine masters, engineers, sailors, firemen and deck hands were fully resolved not to carry pacifists across the ocean. In addition to this, the merchant service, from the officers down to the cabin boys, have pledged themselves not to salute the German flag in any port abroad, and they will refuse to salute it, or even recognize it, on the high seas.

"The German papers, which undoubtedly reflect the German mind, gloat over the crimes of their U-boats much as a foul murderer gloats over his victims. They take a sort of diseased pride in such ghastly work. But the feeling of all neutral seamen is against them. Norway, since the outbreak of war, has lost 745 vessels and 946 sailors through the German butchers, and it may be taken for granted that the result has been a legacy of eternal hate. Spain, Brazil, Uruguay, every nation on earth, has suffered at the hands of the Teuton pirates, and the seamen of every nation will make them pay the bill.

"At a large meeting held in Copenhagen some weeks back, whereat hundreds of officers of the Danish merchant marine were present, it was agreed unanimously that in view of the fact that the German nation had approved of the outrages committed by their U-boats against neutral seamen all association with it was impossible, and it was decided that all intercourse with German seamen must be broken off for a long time to come.

"As far as this country is concerned, the punishment of German seamen may safely be left to British seamen. They know exactly what the brutes have done. They know that over 4000 British civilian men, women and children have been foully murdered by the German submarines, and they will act accordingly. For generations to come no S. O. S. will be heard when it emanates from a German ship in distress. For the next two or three hundred years German seamen will be known as the sharkmen of the sea, and something of the treatment accorded to captured sharks by fishermen in certain parts of the world will be theirs whenever opportunity affords.

"In every foreign port Germans will be marked men. Every hand will be against them, and they will never see the welcome smile of a friend. In the drinking dens they will drink audibly and showily, as is their custom, but they will drink alone. No friendly glass or pot will clink or knock merrily against theirs. They will sit apart like colored trash, and even the commonest Lascar will greet them with scorn. In all the world's great harbors they will be known as butchers and murderers—men branded through to their very souls with the mark of Cain. And on all the seas and oceans their ships will be known as Scheussliche Schiffe—low, horrible and abominable ships!

"Such is the punishment for their dreadful and wicked crimes, and it has been given by the even justice of the whole of the civilized world. Let 'Kultur' take heed of this and tremble for its sons, for in the days to come they will cry out for mercy. But there will be no mercy—seamen never forget and seamen never forgive, and they have looked upon their dead not once, but a hundred times."

THE VAST BUILDING OPERATIONS AT MUSCLE SHOALS TO PRODUCE NITRATES.

IT was most appropriate that the American Electrochemical Society, in its recent Southern tour, should have visited Muscle Shoals, where the Government is constructing the greatest electrochemical plants in the country for the fixation of atmospheric nitrogen. It was good that these men—experts in the knowledge of electrochemistry and who have been responsible for America's supremacy in these lines—should see how thoroughly, efficiently and speedily the big nitrate plants are being built, because they could all the more appreciate the progress that has been made.

The members of the society were taken in automobiles for a general tour through both plants. They did not, of course, investigate the interior of the buildings in close detail, but they were given an opportunity to broadly survey the progress that was being made, and on every hand could be heard statements commendatory of the way the work was being conducted.

The first carload of material for nitrate plant No. 1 was received at Muscle Shoals on October 23, and for nitrate plant No. 2 on December 23. When one looks today at the great work that has been done since that time he marvels at the efficiency that has marked this progress. Covering so many hundreds of acres as it does, with enormous buildings well under construction, with great power-houses almost completed, and with men working harmoniously and energetically with the spirit and morale of an army corps, it is proper that every credit be given to those responsible for carrying forward this vitally important work.

The magnitude of the undertaking can, perhaps, be somewhat appreciated by referring to the fact that, in addition to this being the largest electrochemical undertaking in the country, if not in the world, as 1,000,000 tons of raw materials will enter plant No. 2 annually, a lime plant will be built to burn 350,000 tons per year, and will be the largest lime plant in the country. The coke-drying plant will handle 100,000 tons of coke during the year, the liquid-air plant will have a greater capacity than all similar plants of this kind, both in the United States and Canada combined, and a power-house is being built with a capacity of 45,000 kilowatts, while 35,000 kilowatts will be obtained from hydro-electric plants elsewhere, all of which shows the big scale on which this plant is being constructed.

These plants are perhaps the most vitally important that are being built in this country, because their completion means that they will serve to make this country absolutely independent of a foreign supply of nitrates—absolutely essential to the conduct of the war—for the manufacture of explosives.

In view of its tremendous importance, it was stated by officials in charge of the plants that no experimental processes of any kind would be installed at either plant, and that both of these plants would be operated along the lines of present successfully-conducted plants, the only difference being that they are of larger units. Provisions are, however, being made to take advantage of any new ideas that may be developed, and for this purpose experimental laboratories have been provided to work out new processes to a successful standpoint before consideration will even be given their installation.

Another very significant point, and one that bespeaks of the loyalty and interest of all chemical plants in the country, was the statement by one of the officials that the leading chemical plants throughout the country had not hesitated in any case to throw open their entire plants, their books and their trade secrets in order that these governmental nitrate plants might secure the most complete information that would enable them to be operated in a most modern way to produce the greatest possible results. It was even said, too, that many chemical companies that had spent hundreds of thousands of dollars in developing new processes did not hesitate to advise the Government that some of these processes had not as yet been perfected, and it would be wise for them to use some other method.

Considering all of these things, what better evi-

dence could be cited to indicate the loyalty of the big business men of this country in offering everything that they have to help the Government to prosecute its war work successfully, efficiently and vigorously?

Perhaps one of the most important influences upon the great progress made at Muscle Shoals has been the intelligent handling of labor. About 13,000 men are employed at both plants, and the care and attention which has been given to laying out the camps for the workmen and to provide for their health, welfare and recreation has been done in such a way that an esprit de corps has been created that could not be improved upon by any of the big industries of the country. And the managers of the plants speak with just pride of the loyalty and co-operation of their labor forces. A splendid illustration of this is given in the fact that in the last Liberty Loan campaign the employees of the two plants raised \$400,000 in Liberty Bonds.

"TO HANG OLD GLORY ON THE PALACE IN BERLIN."

FRANK THOMPSON of Forsyth, Ga., in a letter to the MANUFACTURERS RECORD, writes:

I enclose a clipping from the Atlanta Constitution that for humorous patriotic utterance is about the best thing I have seen. Notwithstanding its humorous vein, I doubt not that it comes from the "old man's" heart, and he means it.

The clipping to which Mr. Thompson refers contains a letter from a Georgia father who sends two of his boys, which he mentions as "being one-third of my crop," to fight the world's battle of civilization against barbarism, and he promises the others if needed, and then to follow himself. The article in the Constitution is as follows:

Two husky young Georgians arrived at the navy recruiting office Thursday with fight and determination written on their faces and betrayed in their alertness and applied for enlistment in the navy, at the same time presenting to Lieutenant Atkinson the following letter from their father, F. D. Gillen of Bishop, Ga.:

"To America, the Greatest Nation on Earth:

"I am shipping you today two boys, being one-third of my crop. I have others growing up and will ship them as fast as they mature.

"I hope this consignment will be enough, but we must go 'over the top' and hang 'Old Glory' on the palace in Berlin, and if these two are not enough to help do this, I hope they will do their part in holding until the other boys can get there, and with the last installment I will come myself."

The two boys were accepted and are now on their way to follow their father's instructions.

SUCCESS OF CONCRETE SHIP FAITH HAS STARTED SUGGESTION IN SAN FRANCISCO OF BUILDING BOILERS OF CONCRETE.

SO enthusiastic are San Francisco people over the test of the concrete ship Faith that as an outcome thereof Mr. Jos. J. Tynan, general manager of the Union Shipbuilding Works of the Bethlehem Corporation, is quoted as preparing to build a boiler of concrete, and the claim is made that this would produce an estimated saving of 90 per cent. It is understood that the idea originated with John K. Bulger, supervising inspector of steamships on the Pacific coast. He and Mr. Tynan were on the concrete ship Faith, and, impressed by her performance, decided to make the experiment of building a boiler of concrete. Mr. Tynan is quoted as saying that there is nothing to show that the concrete boiler is not possible, and that he would begin on making one at the Union Iron Works on the morning after his talk. It is said that there will be a tube of light steel and around this a cylinder of concrete, the boiler to be of the Scotch type, and, in addition to this, he was quoted as saying:

I believe that this will work as well as a concrete ship bottom. The inner steel tube will take up the expansion and contraction. So far as I have figured it out roughly the concrete boiler will save as much as 90 per cent. in construction.

"TO CRUSH AND DESTROY THAT FOUL AND MONSTROUS THING."

TRINITY Church, New York, in its memorial service for the dead who were murdered when the Lusitania was sunk, gave an illustration of the kind of service which should, on that day, have been held in every church in America.

In attendance upon the services were several survivors of the Lusitania, while a number of patriotic societies, including the Sons of the American Revolution, the Daughters of the American Revolution and others, were also represented at Old Trinity Church, which, facing Wall street, stands as one of the nation's monuments, a scene of quiet dignity, reverential in the extreme, as it looks out upon the greatest center of financial, business and patriotic activity in America, for Wall street is the embodiment of patriotism and finance.

The Rev. William T. Manning, D.D., rector of Trinity, in his sermon stated the case of civilization against Germany with such clearness and force that his words should be read by every thinking man in this country.

In the course of his sermon Dr. Manning said:

"The sinking of the Lusitania opened our eyes as a people to the meaning of the war.

"It was the treacherous blow of an assassin. Those who lost their lives were stricken in the dark as they went confidently upon their way. They did not die in vain. They left a message for us. America must not, will not, forget. Their death compelled us to see once and for all what Prussianism means.

"The sinking of the Lusitania, the shooting of Edith Cavell and Captain Fryatt, the dastardly spy system and secret propaganda, the firing on helpless sailors in lifeboats, the forcing of women and children to march as a screen for advancing troops, the hideous cruelties practiced on prisoners of war, unspeakable outrages upon women, wholesale enslaving of men, those awful scenes in Belgium the full truth of which we shall never know until the war is ended—these and similar things revealed to us the Prussian mind. And so it is idle any longer to draw a distinction between the German rulers and the German people. These things which the rulers planned are carried out because the people are willing to have it so. They stand unredressed and unrepented; they cry aloud for the judgment and execration of all true men.

"On the anniversary of this crime we consecrate ourselves anew to the great task laid upon us. We pledge ourselves afresh to give our time, strength, money, all we have and are, to crush and destroy that foul and monstrous thing which has arisen on the earth, which bears the name of Prussianism. We will have no compromise until it is done.

"There are three things we must do. First, we will keep those brutal wrongs clear before our minds. We will keep burning in our souls the fire of a fierce and holy wrath against these deeds and those who committed and still exult in them.

"There are those who tell us we must not hate, that we must fight this war without moral passion while the red-handed murderer is still at his task. We are told we are to form no harsh judgment because we ourselves are all sinners. Those who give such teaching will bear watching. If they are loyal to their country, they are not loyal to justice and righteousness. Such teaching has a somewhat Christian sound. In reality this vapid and spurious and disloyal charity is as far from Christianity as light is from darkness. It is a cold pacifism which is unwilling to see any difference between right and wrong or take a side between good and evil. It is religious Bolshevism. It holds up before us a God whose characteristics are tolerance of evil and feeble amiability. The God in whom Christians believe loves righteousness and hates and punishes sin.

"We must keep the flame of indignation hot and burning. We owe this to our own souls, to those who have suffered so terribly; yes, we owe it even to Germany herself.

"The combined force of our arms will bring that criminal nation at last to repentance. Until then we will hear from no source whatsoever any word

or suggestion of peace. Peace proposals now are but one of the methods of securing Prussian victory. They are intended to break down the morale and weaken the fighting spirit of our country. So long as German armies are in the field the word peace is suspected. It will be used only by traitors to our cause."

HOW TO INCREASE COAL EFFICIENCY AND DECREASE COAL CONSUMPTION.

A PLAN for reducing coal consumption while increasing efficiency of boiler plants is suggested by Mr. F. H. Sparks of the W. P. Davis Company, Louisville, in a letter to the United States Fuel Administration. Some months ago we published a letter from Mr. Sparks to Dr. Garfield suggesting that a canvass be made of industrial plants using coal inefficiently burned for the purpose of operating these plants to greater efficiency and thus reducing the consumption of coal. Mr. Sparks advises that he has recently received a report in regard to his suggestion made in January, in which the Fuel Administrator advised that it was quite in accord with his views, and he is about to "inaugurate a system of factory inspection and classification of plants based on their efficiency of coal use, and a supplementary campaign of lectures, moving pictures of good and bad operation, bulletins, etc." This letter stated that the plan is now being tried out in New York, Pennsylvania and New England, and will also be put into effect in other coal-consuming States.

Commenting on this, Mr. Sparks writes:

This plan is highly commendable—for peace times—but it certainly does not suit the present war times. So I am again writing the Fuel Administration and enclose a copy of the letter. We need action, action backed up by forceful, energetic intelligence, and our railroads can be largely relieved of their burden and a large saving in both fuel and labor effected by acting promptly on the suggestions made.

Mr. Sparks' letter to the Fuel Administration, under date of May 6, in further discussion of this subject, is as follows:

I have yours of April 9, in which you advised that the Fuel Administration is quite in accord with my views of fuel conservation as expressed in my letters to Dr. Garfield of January 23 and April 4, but the work that you speak of doing, such as inaugurating a system of factory inspection and classification of plants based on their efficiency of coal use, and a supplementary campaign of education among engineers and firemen, to include lectures, moving pictures of good and bad operation, bulletins, etc., does not indicate that you are in accord with my views.

The recommendation that I intended my letters to make was the issuing of a mandatory order to industrial plants based on surveys made by competent engineers, apportioning to these plants only the amount of coal shown necessary by these surveys to operate the plants.

In my modest opinion, such a mandate as I recommend will become immediately effective as a coal-saving measure and immediately productive of results.

Every waster of coal has frequently had his attention called to this waste, and knows that he is wasting coal.

To inform this class of wasters that they are ignorant will result in their sitting back, waiting for the education you contemplate giving them. On the other hand, if they know they must run their plants on a specified amount of coal they will speedily equip themselves to meet this condition.

I would suggest going even further—and I would do it now—take over coal mines near the larger manufacturing centers and establish there large high-tension electric plants and instead of burdening railroads with coal to use for light and power purposes, send its energy to these centers over a pair of wires; installing also at the mines by-products plants, using the gas for fuel to make electric current, recovering the coke, ammonia, tar products, etc., for the market.

In years gone by I have conducted and witnessed tests in boiler plants that showed Thermal efficiency not to exceed 2 to 5 per cent. Many of these plants are still operating under their obsolete methods, and the largest source of coal waste is in plants of this character, and measures that would be immediately effective, in my mind, should be put into force.

I have a boy on the other side who enlisted immediately on the declaration of war, and who has been in France since early last summer. I don't like to think of him and his comrades having to hold the Huns while we are only pottering on this side and not giving the best that is in us in backing them up.

We have the spirit, the brains and the money to do really big and constructive things, and we are losing a splendid opportunity if we neglect at this time to take over mines and put into operation large Government-owned or controlled electric plants, a measure which would be impossible under private ownership of railroads and mines.

RAILROADS' GOOD WORK SHOULD BE CONTINUED

Let There Be No Let-Up in Industrial Development
While Lines Are Run by Government.

MAKE GREATER EFFORT NOW

Editor Edmonds Takes Matter Up With Govern-
ment Authorities—John Skelton Williams'
Reply Indicates No Cause for Alarm.

[Richmond Times-Dispatch.]

THE foregoing display heading from the Rich-
mond Times-Dispatch shows that that paper
has no realization of the seriousness of the situa-
tion, and that it did not know that after 25 years
of splendid work for the South the Southern Rail-
way Co.'s industrial and agricultural department,
has been disbanded and the organization completely
broken up. This is a national disaster, and it
should never have been permitted.

In a letter to Mr. McAdoo, discussing this situa-
tion, the editor of the MANUFACTURERS RECORD, un-
der date of May 8, wrote:

Hon. W. G. McAdoo,
Director-General of Railroads,
Washington, D. C.
Baltimore, Md., May 8, 1918.

Dear Mr. McAdoo:

Having recently discussed with Mr. Williams the
question of railroad work in the development of the
agricultural and industrial resources of the South,
I trust that I may claim your attention for a few
minutes and ask you to read the enclosed clipping from
this week's issue of the MANUFACTURERS RECORD bear-
ing on the subject.

I also attach copy of a letter which I am today
writing Mr. Williams.

It is not possible to develop the industrial and
agricultural resources of the country sufficient to meet
the demand for munitions of war and for foodstuffs
except through the utilization of the resources of the
South.

The Central West, from Chicago to the Atlantic, has
been overdeveloped in proportion to transportation
facilities, and every new factory built in that territory
will intensify railroad congestion for a long time to
come. This condition cannot be overcome even by in-
creased rolling stock. An enormous expansion of rail-
road mileage as well as of rolling stock would alone
meet the situation.

From the food-producing point of view it is a well
recognized fact that the West has practically reached
its limit for a long time to come. The increase so
seriously needed by this country and the Allies must
come from the South and Southwest. There are limit-
less capabilities in the South and Southwest for in-
creasing the output of foodstuffs, but to accomplish
this it will be necessary to bring new people into the
South from overpopulated agricultural regions of other
sections.

The railroads in the South and Southwest have been
doing a work of national importance in bringing to
the attention of capitalists and manufacturers the
great industrial potentialities of this section in the
way of raw materials. The South is the only section
which can supply the raw materials for materially
increasing our output of war necessities. If the rail-
roads are not permitted to press these facts as they
have done for years upon the attention of capitalists
and manufacturers, the nation itself will suffer.

Some of the railroads are under the impression that
the Railroad Administration is discouraging continua-
tion of work in industrial development of the country
tributary to their lines. For the good of the nation I
trust that this is a mistake, but it has already resulted
in causing the Southern Railway Co. to disband an
organization for industrial and agricultural work which
during the last 25 years has done a splendid service to
the nation and to the South.

I think it a national disaster that work of this
kind should be delayed. I am considering it from
the national standpoint and not from the sectional.
I know that the increase in iron and steel, in muni-
tions generally, in explosives, in chemicals as well
as in foodstuffs, must come largely from the crea-
tion of new activities in the South, or they will not
come at all. Therefore, if the Railroad Adminis-
tration even passively discourages continued devel-
opment work by the railroads of the South and
Southwest, it will, I am sure, based on forty years
of study of this country, do the nation a great and
lasting injury.

May I ask you to give serious consideration to the
question?

Very truly yours,
RICHARD H. EDMONDS, Editor.

NEW ORDNANCE PLANT SHOULD BE LOCATED AWAY FROM CONGESTED INDUSTRIAL SECTIONS.

Baltimore, Md., May 14.

Hon. E. H. Gary,
Chairman United States Steel Corporation,
New York:

In view of overcongestion of industries and rail-
road traffic through the Chicago, Pittsburgh and
Atlantic Coast district, would it not be possible for
you to build the ordnance plant at some point in
central South? If this could be done it would help
to turn industrial development into the South and
Southwest, which is absolutely essential to the
rounding out of national life and to the safety of
the nation in broadening its industrial development.
It is now universally recognized that the concentra-
tion of industries in the East menaces the welfare
of the nation, overtaxes railroad facilities and
works to the disadvantage of the country from
every viewpoint. The Steel Corporation, as the
great leader in American industry, would render
the nation an infinite service if it could see its way
clear to building the ordnance plant in the central
South. Can you wire anything for publication on
subject?

RICHARD H. EDMONDS.

The foregoing telegram from the MANUFACTURERS
RECORD to Judge Gary of the Steel Corporation
states the case in regard to the overcongestion of
industrial interests in the East, bringing about a
railroad congestion that endangers the very life of
the nation.

For years the MANUFACTURERS RECORD has pointed
out this situation and warned the iron and steel
men of the country and the railroad people that the
traffic which was being created in the district be-
tween Chicago, Pittsburgh and the Atlantic coast
was rapidly increasing beyond the power of railroad
facilities to handle. We have pressed this point
upon the attention of Secretary McAdoo and upon
others as the reason why every new factory built
in that district becomes a liability instead of an
asset to the district and to the nation.

It is not possible for the existing trackage of rail-
roads, however great may be the increased supply
of cars and locomotives, to adequately handle the
enormous business which is now concentrated in
that territory, and every new factory built is a bur-
den to existing industries by increasing the conges-
tion on the railroads.

It is a matter of prime importance that the people
of the East should themselves recognize that their
own welfare and their ability to do business are
endangered by any further increase in industrial
development until years hence, when increased
trackage and the building of new railroads may
make it possible for larger traffic to be handled
expeditiously.

This situation should have been foreseen by rail-
road managers and by financiers and industrial
leaders, but they blindly shut their eyes to the
warning which has been given for years.

It becomes doubly important at the present time
that this situation should be fully understood, since
the United States Steel Corporation will now under-
take to build at the request of the Government an
ordnance plant, the cost of which will run into many
millions of dollars. It is recognized that it is neces-
sary to build this in some central point and not on
the seaboard. To build it in the Chicago-Pittsburgh
district would only intensify present conditions.
There are many points in the South and Southwest
which should be given adequate consideration. It
may be somewhat more difficult at the start to build
and equip and manage the plant if put in the cen-
tral South, but this is a plant which is to be built
not for today only, but for all time, and if there are
difficulties in the way, they can be overcome, just as
the difficulties in the way of building the vast
nitrate plant at Muscle Shoals have been overcome
by the power of genius and energy combined.

The Government, the industrial leaders, railroad
officials and the financiers of the country must rec-
ognize the fact that further industrial growth in
the central East would endanger the very life of the

nation; and, therefore, regardless of temporary in-
conveniences, all further development should for the
time being be concentrated in the South and South-
west. This is not in any sense a sectional question.
The MANUFACTURERS RECORD does not advocate it
from the sectional point of view. This is pre-emi-
nently a national issue, and the life of the nation
may some day hang upon how the Government and
the business leaders of the country act at present in
this particular matter.

THE GOVERNMENT MUST ADVANCE RAILROAD FREIGHTS.

GOVERNMENT control of railroads is not prov-
ing the easy job for the Railroad Administra-
tion nor for the country which had been so eagerly
anticipated by the shortsighted people who thought
all of our railroad difficulties were due to inefficient
railroad managers.

The country starved the railroads to death and
clubbed them at the same time in order to make
sure that there would be little possibility of their
coming back to life.

To save a desperate situation the Government
took over the management of the railroads, but ever
since it did so it has been steadily reducing facilities
for travel, cutting out every train which could pos-
sibly be spared and crowding other trains almost to
suffocation. Now it finds it necessary to project an
increase of about 25 per cent. in the freight rates in
order to meet the situation and save the country
from an enormous deficit in its guarantee to the
railroads.

We are now getting an indication of the fact that
even national control of railroads cannot bring
about better railroad facilities for travel and traffic
than would have been possible for us to have had in
this emergency had we not been so vigorously at
work for years clubbing and starving the roads to
death.

The men who vigorously fought a moderate ad-
vance in freight rates when that advance would
have made it possible to enlarge railroad facilities
and be ready for this emergency have helped to
bring about the condition which now forces the Gov-
ernment to increase freight rates by about 25 per
cent. and at the same time decrease traveling facili-
ties to the utmost extent possible. This condition
only serves to emphasize what a tremendous liab-
ility the Interstate Commerce Commission has proven
itself to be.

In pamphlet form available for distribution

Damning Revelations of Germany's Turpitude

A Confession from a Partner in a Nation's Crime

(Reprinted from Manufacturers Record

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5 cents per copy

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THE CONCRETE SHIP FAITH MAY POINT THE WAY TO GREAT ACHIEVEMENTS.

FROM the beginning of the destruction of shipping by the submarines we have sought to impress upon the country that ships and more ships and still more ships are the supreme need of civilization. In vain will we create an army if we cannot transport and provision and munition that army; in vain will we increase our food production for the benefit of our allies if we cannot ship foodstuffs to our own armies in France and to our allies; in vain will be all the work which the nation is seeking to do in co-ordinating these vast activities for war-making unless we can carry across the ocean, despite the submarines' murderous work, the products of this country, of the farm and the factory and of every branch of our war-making machinery. It is for this reason that we urged unceasingly the building of wooden ships, as well as of steel ships, on the Pacific coast, on the Atlantic coast, on the Gulf and on the Lakes, to the utmost extent of the nation's power. Now that the concrete ship Faith, whose builders had faith in the feasibility of concrete ships sufficient to cause a few men to risk \$700,000 in the undertaking, seems to be a success, it becomes of the utmost importance that the nation shall test as quickly as possible the building of concrete ships for every purpose, whether for coastwise trade, Lake trade or transatlantic trade.

These ships can be built under climatic conditions which would permit continuous work during the winter, and on the Pacific coast, as well as on the South Atlantic and Gulf coasts, where such climatic conditions exist, the Government can well afford to make quick and heavy expenditures in the building of concrete ships.

The steamship Faith has had its trial trip in San Francisco Bay, and the people of that section have been so greatly impressed with its success that the builders have, it is reported, received an offer of \$1,800,000, or nearly three times the actual cost of the ship itself.

When W. L. Conyn projected the building of this ship he backed his own faith with \$5000 and secured from a few friends subscriptions amounting to \$50,000. On this basis the plant was started, and then assessments were made as the work of building the ship went on, until ten men had each put up \$70,000, or a total of \$700,000. Here is a case where men backed their faith by their works, and without waiting on the Government entered upon an undertaking which may help to save civilization. How many other people in the country, instead of waiting on the Government, are willing to do as these broad-minded patriots of San Francisco did when they put up \$700,000 for the construction of this ship?

On May 6 the Faith steamed out of her berth for her trial trip, and the San Francisco papers give elaborate accounts of what is reported to have been a most successful test. They say that not only did the Faith exceed the estimated speed of 9 knots by more than 10 per cent., but that this was accomplished with less vibration than had ever been noted on board of any ship. Two separate speed tests over a measured mile developed a speed of 10½ knots an hour against a heavy tide. The testing trip lasted four hours.

The impression made upon practical men is illustrated in the statement made by Jos. J. Tynan, general manager of the Bethlehem Steel interests on the Pacific coast, who is quoted by the San Francisco Examiner as having said:

I don't think there was a man aboard the Faith that was not astonished at what she accomplished. Her performance was in every way a record achievement, and no one can place a limit on possibilities after witnessing such a thing. She appeared as steady in every way as a steel ship, and there was no vibration to speak of. Her builders have certainly every reason to feel elated.

John K. Bulger, supervising inspector of steam vessels on the Pacific coast, was equally astonished. He said:

The whole thing reduces itself to this: If the Faith holds up as well outside the bay as she did today inside, her success will be unquestioned, and she must be hailed as a genuine marvel. I was conscious of no vibration while aboard her, and she behaved in every way as a staunch steel craft. It was a most wonderful performance, both in speed and in steadiness.

HOW THE SOUTH IS FEEDING THE COUNTRY.

THE magnificent showing of foodstuff production by one county in Alabama, which is typical of what a large part of the South is doing and what nearly all the South can do, is given in a letter to the MANUFACTURERS RECORD from L. E. Morgan, chairman of a special committee of the Rotary Club of Dothan, Ala. In his letter Mr. Morgan says:

In view of the fact that criticisms continue to appear at intervals in connection with the alleged failure of the South to raise enough foodstuffs to feed itself, we have concluded to send you some facts in connection with this immediate vicinity.

The Rotary Club of this city has just completed an investigation as to the number of livestock shipped from this county (Houston, one of the smallest in the State) from August 1, 1917, to April 1, 1918, and this totaled 750 carloads during that time. In addition, there was enough raised to supply its own needs, there being none shipped in here. We estimate the total value of these 750 carloads of stock at close to \$2,000,000.

In addition, the Government published the following statistics a few weeks ago as to the crops grown in this county during 1917:

Corn	\$1,965,600
Cotton	1,050,000
Cottonseed	252,000
Peanuts	1,337,000
Hay	570,000
Velvet beans.....	1,280,000
Syrup	476,000
Peas	42,000
Sweet potatoes.....	168,700
Oats	243,000
White potatoes.....	24,000
Total.....	\$7,408,300
Livestock	2,000,000
	\$9,408,000

This in a very small county (population about 35,000). In addition, the Government figures do not cover truck crops, poultry, butter and eggs, fruits and many other subsidiary crops, which altogether total a large amount. (We refer, of course, to that part shipped out.)

We think this is a good showing, but with a fair crop season the indications are it will be considerably increased the present year.

If every county in the Northern and Western States could make as good showing where would the total go to?

Mr. Morgan is correct. This is a good showing, and it should help to offset the unwise criticisms which have emanated from Washington about the South not feeding itself.

The South is largely helping to feed the nation.

INTENTIONAL OR UNINTENTIONAL PRO-GERMANISM IN SOME NEWSPAPERS.

PRO-GERMANISM finds its way, either directly or indirectly, into some American newspapers. Occasionally it is due to pro-German sentiments; sometimes it is due to the wobbly thought of some man who wants to say something but doesn't know how to say it and so wanders all over creation and gets nowhere excepting to leave an insidious impression of dissatisfaction with America and its allies.

In a recent issue of the Daily News of Greensboro, N. C., is an editorial which defies interpretation. One paragraph in this editorial, which is certainly not pro-American, whether so intended or not, is as follows:

"A pride worthy of respect has had its part in the obscuration of many people, but here, and one is convinced in England too, that pride has its aspect of provincialism, which is an unreasoning prejudice. Do not superior virtues inhere in a man's own kin, his own neighbor's? Are not English-speaking peoples the natural superiors of all other peoples in whatever is worth while? This is the calm assumption that has accompanied, if one may not say led, the democratic nations of the earth to their present plight. France has been under no illusions, but France was more favorably situated—for the possession of unprejudiced knowledge."

and to this the Daily News adds:

"It does not follow, if the Teuton hordes are able to compass the complete defeat of all the allied forces in Europe with America's own comparatively small contingent, that democracy will have been destroyed; but a future for it can be discerned only with the eye of faith."

There is much more of the same kind. If this editorial was not written for the purpose of confusing the minds of the readers of the News and creating distrust of our country and our determination to win the war, cost what it may, then it

must have been written by some individual who did not know what he was saying.

Many an editorial has been written in this country for the purpose of confusing American thought and lessening our determination to win the war, while at the same time vigorously protesting that we must win it, and the latter protestation has often been made for the purpose of obscuring the real issue and creating the impression of patriotism when none existed.

This country cannot afford to permit any such newspaper work to be done in America. The paper that does it is in reality spreading German propaganda, whether knowingly guilty or not.

America is in this war to win and it will fight, as was well said by a Baltimore banking house in a circular issued a few days ago, until it wins, whether that be in 1920 or in 2020, and he who seeks to lessen America's determination to win, who directly or indirectly sows the seed of dissension or distrust is merely lengthening the war and increasing the deaths of American soldiers who die in behalf of civilization.

"William the accursed" is not more to be despised and loathed by all decent human beings than is any lukewarm American, or any man who fails to do his duty to the utmost extent of his power in arousing the fighting spirit of the nation, in standing behind the men who are in the trenches and who give themselves wholesouledly to this one supreme task, the most supreme task to which civilization has ever been called.

HAMPERING CONDITIONS IN COAL, IRON AND RAILROAD MOVEMENTS.

THE somewhat chaotic conditions existing in the coal and iron and railroad interests of the country are outlined in the weekly circular of the Matthew Addy Company of Cincinnati, which, in discussing these conditions, makes the following truthful and interesting statements:

A large part of the iron troubles come from the lack of proper and adequate transportation. The railroads are doing better, but they are unable to do all that is required of them. As regards the coal mines, the situation is either a scandal, a crime or a calamity of the most deplorable kind. Not enough empties are being furnished all the coal mines to keep them running full. In certain districts the railroads themselves have made a bad situation worse by a kind of bribery; that is, they have forced some of the mines to take orders at a cheap price for locomotive coal with the promise that they will give them all the empties they need. This leaves other mines that have not taken railroad contracts without empties. The result is an outrageously unfair distribution of empties, in effect a discrimination in railroad service that works great wrongs. This is absolutely illegal. Formerly the remedy lay with the Interstate Commerce Commission, but no one knows where to appeal for redress. The coal business and the iron business are tied together, as fuel is the beginning and the end of all the iron-manufacturing processes. There is an opportunity here for the Fuel Administration and the Director-General of Railroads joining hands to work an immediate reform, and if they do not, there is a fair prospect that a good part of America will shiver and freeze next winter.

"MAY HIS TRIBE INCREASE."

J. C. Morris,
Contractor and Builder.
Heavy Work a Specialty.

Greensboro, N. C., April 30.

Editor Manufacturers Record:

Attached please find my check for \$5 for one year. The writer has kept close up with the war from its start, and he wishes to hand it to you for your good plain facts. If every paper that is published in the United States would hand out the facts as you do there would be some great changes here at home. It makes the writer feel good at heart to find one man that is so honest as to write the facts. Hit them hard, old pard. May the richest blessings of heaven be handed to you for your brave expressions on paper of the MANUFACTURERS RECORD. Are you doing your bit, yes, and the Hun is hard hit. Keep it up. J. C. MORRIS.

We are doing the best we can, but we utterly fail in the power of language to do justice to the subject. No human being can adequately describe the depth of Germany's depravity.

HUNS ENSLAVE RUSSIA TO FORM NEW ARMIES AND CONQUER WORLD

Crack of Kaiser's Knout Replaces That of Tsar as People Are Being Whipped Into Subjection in Conspiracy to Restore the Monarchy and to Remobilize Trained Hordes With Which to Strike at Allied Democracies, Mr. Herman Bernstein Declares.

Fac simile heading from
New York Herald,
May 14, 1918.

WRITER WARNS AMERICA AND HER AIDS IN WAR
TO ACT AND BLOCK SCHEME BEFORE TOO LATE.

Spiderlike Prussian Domination and Destructive Bolshevik Policies Leading Masses Into Maze Which Only by Utmost Sagacity Can Be Overcome by Foes of Central Powers.

The foregoing heading in the New York Herald to a dispatch from its well-informed Russian correspondent should not surprise anyone, for it could have been foreseen from the day when the people of Russia were taught to believe that they must accept a peace without victory, causing them to yield to the German propaganda, which we have been told worked industriously upon the simple minds of the Russians, that they must bring about peace without victory.

We now face the certainty that Germany will to the utmost extent of its power enslave all Russia, utilize the vast resources of that country in minerals and in agricultural products, and drive into its armies millions of the Russian people, training them for its world-conquest campaign, unless we can beat Germany before it can accomplish these things.

The situation is one fraught with tremendous consequences. Even the thought of its possibilities is staggering, but we must meet it, and meet it as rapidly as it is possible for human energy to throw on the Western front an army of 5,000,000 Americans, backed by an equal number in training at home. Nothing less than that will meet this condition. If we do not, in connection with the Allies, defeat and crush Germany and Austria before they can mobilize and control the resources in men and materials in Russia, no human pen can picture the future.

And yet George Creel, chairman of the Publicity Committee, still dares to stand before an American audience and gloat over his statement that he is glad that America went into this war unprepared! May heaven save the nation from being influenced by the thought of men who take such a position, when every intelligent man now recognizes that the one supreme mistake of our existence, the supremest we ever made, was not to foresee the certainty of this war and the

necessity of immediate preparation for it from the very day when the Lusitania was sunk. We should have known it from the day Belgium was invaded, but there was absolutely no excuse for our failure not to see it from the day the Lusitania was murdered.

OUTLOOK FOR WHEAT PRODUCTION.

THIS year's winter wheat crop is estimated by the United States Department of Agriculture, as of conditions May 1, to be 572,539,000 bushels, as compared with the final yield of 418,070,000 bushels last year, 480,553,000 bushels in 1916, 673,947,000 bushels in 1915, and 684,990,000 bushels in 1914. According to this estimate, the South's production of winter wheat will be 165,807,000 bushels, compared with 141,842,000 bushels in 1917.

In making this forecast the Agricultural Department has allowed 13.7 per cent. of the acreage planted last autumn as the area which has been abandoned on account of unseasonable weather and other causes, which is 2.6 per cent. higher than the ten-year average of abandonment of planted acreage. The area of winter wheat to be harvested in the whole country, therefore, is about 36,392,000 acres, which is 5,778,000 acres less than the acreage planted last fall, and 8,962,000 acres, or 32.7 per cent., more than the acreage harvested in 1917.

The average condition of winter wheat on May 1 was 86.4 per cent., compared with 73.2 per cent. on May 1, 1917, and 85.7 per cent., the average for the past ten years on May 1. A condition of 86.4 per cent., the Department states, is indicative of a yield of 15.7 bushels to the acre, assuming average variations to prevail thereafter. On the estimated area of 36,392,000 acres to be harvested, 15.7 bushels per acre would produce 572,539,000 bushels, or 36.9 per cent. more than in 1917, 19.1 per cent. more than in 1916, but both crops, be it remembered, were far below our requirements, and 15 per cent. less than in 1915 and 16.4 per cent. less than was raised in 1914. Any forecast as to final production this long before the harvesting of the 1918 wheat crop is but a little more than a guess, and the Department wisely reminds us that the outturn of the crop will be above or below the figures given according as the change in conditions from May 1 to harvest is above or below the average change.

Wisconsin and Texas, each with 45 per cent. of its acreage abandoned, led in area abandoned after planting, followed by New Mexico, with 35 per cent.; Kansas, 29 per cent.; Michigan, 24 per cent., and on down to 1 per cent. abandoned in Nevada, Arkansas, Missouri, Indiana and Virginia.

All the Southern States indicate an increase in winter wheat production this year over last, excepting Maryland, with a decline of 1,200,000 bushels;

Texas, 8,200,000 bushels, and Oklahoma, 6,100,000 bushels. Missouri leads the Southern States with an indicated increase of 18,400,000 bushels. There are also notable indicated increases in Tennessee of 5,300,000 bushels; Kentucky, 4,300,000 bushels; North Carolina, 3,400,000 bushels; Virginia, 2,600,000 bushels; Georgia, 2,400,000 bushels, and South Carolina, 1,300,000 bushels over last year.

Of the States outside of the South, Kansas, though it has abandoned 29 per cent. of the acreage planted, leaving 6,730,000 acres to be harvested, shows an indicated gain of over 50,000,000 bushels over last year's yield, and Nebraska, with 2,821,000 acres to be harvested, has a 40,000,000-bushel increase, while the States of Idaho and Illinois each are estimated to have over 10,000,000 bushels increase.

Production of rye for the whole country, according to conditions May 1, is estimated to be about 82,629,000 bushels, compared with 60,145,000 bushels last year and 48,862,000 bushels in 1916.

The expected hay production for 1918 is about 107,550,000 tons, compared with 94,930,000 tons in 1917 and 110,992,000 tons in 1916.

It must be borne in mind that even if this optimistic estimate of the Department of Agriculture should be fulfilled as to a larger winter wheat crop, it is impossible as yet to make any estimate as to the spring wheat, and even if the winter wheat yield should be as large as the Department is now optimistically indicating, or even larger, it will still fall short by more than 100,000,000 bushels of the yield of 1914 and 1915.

Moreover, the utmost yield of wheat that can possibly be anticipated will not equal the needs of this country and the Allies for the coming twelve months. We are cutting down reserves to the lowest possible extent and sweeping bare the barns of the farmers and the granaries of the mills to an extent never before known in the country's history. We shall, therefore, enter the new crop year bare of wheat and flour as never before, and this must be taken into account. Wheat conservation will be essential even if we should be blessed with a billion bushels, and no such yield is as yet in sight.

The MANUFACTURERS RECORD looks for a shorter corn crop than last year, and for continued high prices of corn, as well as of other foodstuffs.

RECLAMATION AND DRAINAGE OF LAND AN ESSENTIAL WAR MEASURE.

M. R. J. A. KEMP, president of the City National Bank of Wichita Falls, Tex., one of the leading business men of the State, who knows the food-producing possibilities of reclaimed land, writing under date of May 7 to the MANUFACTURERS RECORD says:

I am a constant reader of your valuable paper, and read with much interest the splendid articles contained therein containing so many valuable suggestions looking to the winning of this frightful conflict in which we are now engaged. I have been particularly interested in the fight you are making for increased food productions.

I note with very special interest the article in your issue of May 2, page 64, "Land Reclamation Work Essential to War." In this connection I desire to call your attention to the bill that is now pending in Congress, known as the Chamberlain-Smith bill.

I am taking the liberty of sending you, under separate cover, a copy of this bill, together with a paper written by Judge Will R. King, General Counsel for the Reclamation Department; this article having appeared in the March number of "The Irrigation Age." Judge King's article will give you a very comprehensive idea of the purposes for which this legislation is proposed. The citizens of Texas are very much interested in having this law passed, as it would broaden the scope of the activities in the Reclamation Department, enabling them to reclaim lands in all the States, both by levee and drainage, as well as by irrigation. In Texas there are many thousands of acres of land that could be reclaimed by leveeing. There are also many thousands of acres that could be reclaimed by irrigation by storing the flood or storm water that comes during years of excessive rainfall.

Appreciating the interest manifested by your great journals in subjects of this character, I felt it would not be amiss to call your attention to this pending legislation. The bill does not contemplate any appropriation; simply proposes to have the Federal Government aid through the Reclamation Department in financing meritorious reclamation projects in all parts of the nation.

We would again urge, as we have repeatedly done, the importance from the win-the-war standpoint of

the heartiest co-operation on the part of the National Government for drainage and reclamation work in order to enlarge the food supply of the nation.

BEFORE WE CAN MAKE WAR TO THE UTMOST, THE NATION MUST WORK TO THE UTMOST.

MEN between the ages of 20 and 31 are subject to the call of the country for fighting purposes, and several States have enacted laws compelling able-bodied idlers, whether rich or poor, to go to work or to jail, but a recent resolution adopted by the Arkansas State Council of Defense, Little Rock, offers a way to secure a greater concentration of the nation's man-power upon the production of essentials necessary for winning the war. The resolution is as follows:

Be It resolved, That it is the sense of the Arkansas State Council of Defense that all persons between the ages of 18 and 70, male and female, rich and poor, should be enrolled in the service of our country and selected for such duties as each is best suited to perform. Those best suited for army service should become soldiers as needed; mechanics should pursue their vocations, either at home or in building ships as the service of the country may demand; miners will pursue their vocations as required; railroad men should be detailed for the railroad service; doctors practice medicine; lawyers practice law; preachers preach; teachers teach; farmers farm; and every person so enrolled will be required to serve in the positions that they are selected for a reasonable time every day in the week.

This subject of selective service was touched on recently in an editorial by the Memphis Commercial-Appeal in the following extracts:

The first start toward organizing the nation would be to register every male and every female between the ages of 18 and 65, and every male and every female, healthy, no matter whether a working man or woman or a millionaire, who spent a day in idleness should be admonished. And everyone who spent a week in idleness should be forcibly put to work. And many of those engaged in work in mere luxury creations should be drawn from their occupations and put to work in war necessities. But before this particular line of labor is ordered it would be well to put all of the absolutely idle to work.

Until the war is over every holiday except Sunday should be abolished. Until the war is over the Saturday half-holiday should be abolished.

The business man who gets down to his office at 10 o'clock and leaves at 1 o'clock should get down at 9 and leave at 3. He could thereby release two clerks for army service or work elsewhere.

Advocates of universal selective service or drafting for industrial and other work essential to war work and standardization of a minimum working time per week are increasing among business men who have been studying these questions. Our soldiers are called upon to sacrifice everything, even life itself, and they have to work 15 or 16 hours a day if need be. Is it right that the millions of us who stay at home should seek shorter working hours and higher wages when it is imperative for the whole nation to work to the utmost in every essential line of endeavor that will in any way contribute to our ability to successfully carry on the war?

Before we can make war to the utmost the nation must work to the utmost.

Very much in line with the foregoing is a letter from a business man in Florida, who writes:

On reading your article on page 63 of May 2 issue puts me again in mind of a matter that I have talked over during the winter with Maj. F. K. Huger—that is, the very large number of young men who "tend store" here in Florida. In a little town of less than a thousand there have been 15 able-bodied men in the stores and only half a dozen women. Nearly all the work—90 per cent. of it—could be better done by a bright girl than by most of these men. Is this your view?

No, this is not our view. We believe every woman physically able, it matters not how great may be her wealth, unless detained at home by caring for children or other absolutely necessary home duties, must go into active work in office or store or somewhere else to make it possible for able-bodied men to do other war work of some kind, and in this we practice what we preach.

W. J. Nixon, general manager Wallins Creek Collieries Co., Chattanooga, Tenn., in answer to an inquiry regarding the reported purchase by his company of three additional mines and plans for increasing output, writes:

At the present time we do not plan to make any

new developments. We have ample equipment for a much larger tonnage than we are loading because of the inability to get sufficient men and the indifference of those that can be obtained.

There is a growing sentiment that if the people of this country do not willingly put forth, as dictated by common sense, every effort on their part to seek positions in operations essential to conducting our war activities and work to the limit of their ability and endurance, they will be compelled to do so through some form of selective-service act or else become the slaves of Germany.

We do not know how the whole situation could be better stated than in the following ringing sentences by Colonel Roosevelt, in which he said:

"If any riveter in a shipyard drives only 60 rivets where he could drive 120, he has driven 60 for freedom and he has left 60 undriven for the sake of the Hohenzollerns."

"If any man works three days at high wages and loafes the next three because of the high wages he has received during the first three, he is an enemy to America and an ally of the Kaiser."

"If any man, if any capitalist, makes an undue profit, or if any workman scants his job, he is playing the game of tyranny against liberty and he is false to his brothers in uniform at the front."

A PACIFIC COAST VIEW OF THE JAPANESE-SIBERIAN SITUATION.

IN a letter to the editor of the MANUFACTURERS RECORD Mr. Courtenay DeKalb of Stanford University, California, sends some information in regard to the concrete ship Faith, and in the same letter gives some interesting views of the Japanese-Siberian situation. On these two points we take from his letter the following extract:

The enclosed clippings from the San Francisco papers, regarding the concrete ship "Faith" will probably interest you, as they will give details not otherwise available in the East. Apparently the building of these boats is successful, viewed from the constructive standpoint, and I hope that they will prove seaworthy as well. It is certain that we cannot now get too many ships.

The other day Prof. Ishihashi, Assistant Professor of Japanese History and Government in Stanford University, delivered an address here, in which he pointed out that Japan was not ready to invade Siberia, but that when she deemed the time ripe for so doing she would go ahead without asking permission from anyone. This is interesting, and we must recognize that it is in absolute accord with the Ishii-Lansing agreement. The point to observe is that Japan, when once given a right, does not ask permission to exercise it.

You will agree with me that such a spirit is commendable; we have no right to complain of it. In our diplomacy we must be sure that we mean to concede what we do concede. I have no quarrel with any nation that holds us to the bond we have given, but I have a quarrel with diplomats who engage us to do things that afterward we try to avoid. I refer to the effort to restrain the Japanese from entering Siberia after having given them a free hand in the East. This has irritated the Japanese people, although it happens to have made no difference to the Japanese government at this time, because it turns out that Japan does not consider her own interests imperilled by the presence of the Germans in Russia, and she would prefer not to expend her strength in men and resources in a Siberian campaign, the end of which would be, so far as Japan was concerned, to limit her ability to launch out after the war as a great commercial and shipping factor in the world's trade.

If she does not have to exhaust herself in a Siberian campaign she will come out of the war in a greatly strengthened condition, with increased credit, with increased industrial development, with a great merchant marine, and with power to control a great part of the trade-movement in the Pacific without fear of serious competition. Therefore, the policy of Japan seems to be to protect the East Coast of Asia against German domination, which she can easily do and which she is doing, without becoming involved in any great military enterprise.

I recently pointed out that such a policy was of insignificant value to us and our Allies in the crisis through which we are passing. It does not contribute to the weakening of the German force on any front. It does even more; it gives assurance that there is no danger to Germany from the Asiatic side.

This is not said in disparagement of Japan, but it reveals that she knows her own interest. After all, is it not personal interest that determines national action? If we had better appreciated our own personal interest we would have thrown our "Made in Germany" pacifism to the winds immediately after the battle of the Marne, and have built up a great army prepared to take a hand in the enterprise of defending civilization from the vandal. This history of the German people, the teachings of the German philosophers, all showed

us what kind of a race it was that the Christian world was fighting, and there was no excuse for our holding back from our plain duty. How many of us regret that the lesson of the raping of Belgium was lost upon us as a people; that the violation of our right in the sinking of the Lusitania was not found an immediate cause for war; that finally the interference with our maritime commerce forced the materialists to find common cause with those of us who were desirous of war for the sake of humanity and civilization?

THE AMERICAN RED CROSS.

EVERY nurse sent to the war zone by the American Red Cross saves the lives of 500 men, according to American, French and British army officers.

It costs money to send to France the thousands of brave and patriotic women who volunteer for this heroic duty. Will you go into your pocket for money with which to pay or help to pay the expenses of one of these women? If you will, you will prove yourself an American citizen of the first caliber.

The American Red Cross will start a campaign May 20 to raise \$100,000,000, a part of which will be used for the expenses of the nursing personnel in France. That will be the time for you to prove your American citizenship, the time for you to help save the lives of the soldiery who are fighting to save America from the invader. When you subscribe to this fund you will be helping to save those soldiers just as much as the nurse who goes "over there."—Waco Times-Herald.

Will you help to save 500 soldiers from death by helping to send a Red Cross nurse?

In the face of such a statement as this, the Red Cross should be flooded with every dollar it can use.

"THE RED CROSS" AS PRESENTED ON OUR COVER PAGE.

THE tribute to "The Red Cross and Its Holy Work," by Mr. A. D. Alderson of Louisiana, which appears on the cover page of this week's issue, is such a superb presentation of the work of the Red Cross, such a scathing indictment of Germany and such an appeal to the heart of every man and woman in America to contribute to the Red Cross that we have reprinted the entire cover page on white paper, and copies of it can be had by any who may want to distribute it in the interest of the Red Cross work at \$1 per hundred.

We have given 5000 copies of it to the local work of the Red Cross in Baltimore, and have offered to the local branch, as well as to the Washington office, the right to reprint this in any form desired and to use it in advertisements, or in any other way in which it can help on the Red Cross work.

The same privilege of publishing it as advertisements or printing it in leaflet form is freely given to every reader of the MANUFACTURERS RECORD.

We cannot too strongly emphasize the wonderful presentation which Mr. Alderson has made. His portrayal of the Kaiser as a demon marching through Europe with the breath of Hell in his nostrils, and in one hand a bloody sword held on high and in the other the heart of a child, can scarcely be surpassed.

We Heartily Commend This Suggestion.

Scotland Neck, N. C., May 17.

Editor Manufacturers Record:

I was interested in the letter of Mr. William T. Wells of Melbourne, Fla., to the Saturday Evening Post, published in your issue of May 9, and think his idea and suggestion is good, but think it would be better if he had used the word praying instead of "wishing," as I am a greater believer in prayer than in wishing, and wish to amend Mr. Wells' suggestion by suggesting that every reader of the Post and your paper will on waking every morning go to God in a special prayer for the success of our soldiers and our Allies and the complete overthrow of the enemy.

With this "concerted power of prayer" I believe the answer will be speedy, but we must pray with faith, and "pray without ceasing," that is, "live throughout the days in the same spirit of prayer," believing that God will answer our prayer; buy War Saving Stamps, deny ourselves of such eatables that can be sent "over there," and thus help to answer the prayer.

G. C. WEEKS.

The Steel Men of the Nation United for Patriotic Work

From leading steel manufacturers in the country the MANUFACTURERS RECORD has received some interesting letters and telegrams in reply to the following telegram:

"Referring recent meeting held with Judge Gary and Mr. Replogle about Government's needs for steel. Please write us your views on ability of steel men to meet Government's requirements and any action your company will take looking toward increased output. Am asking same information from other leading steel concerns.

"MANUFACTURERS RECORD."

A Pledge Which Every Honest-Hearted American Should Make.

The American Rolling Mill Co.,

Middletown, O., May 11.

Editor Manufacturers Record:

In response to your telegram of yesterday, requesting my views on the ability of the steel business to meet Government requirements in this tragic emergency, there would seem to me to be no question as to the ability of the steel business of the country to take care of every need of our Government just as fast as definite information can be had as to maximum tonnage that must be reserved, and just what service is wanted or required of each unit.

Our steel men always do whatever they set out to do, even under normal conditions, but with civilization and all that we of America hold dear while in jeopardy, with the "blond beast" looking menacingly and hungrily in the direction of our fair land, I am sure our Government can count on her men of steel and iron breaking every known record in their earnest and determined effort to help to the limit of their ability in bringing victory to the flag that has never known defeat.

As to our own company, we are having a series of meetings in which we expect to meet and explain the situation fully to each and every department in our organization and to every man employed in that department. We feel that production and service can be increased through a better understanding of the whole situation, through a full appreciation of what victory or defeat means to each one of our men, and through the increased morale that is bound to come with that better understanding.

All of the officers of our company have signed the pledge that was prepared in Judge Gary's office at the recent meeting in New York.

The following pledge has already been signed by 250 of our superintendents and foremen, and is to be submitted to the members of each and every department as meetings are held and explanations made.

The following is the pledge:

"Believing that our republic and its ideals and its opportunities must be perpetuated; that its present great responsibility to civilization, as well as its great debt to its heroic allies, must be fully met; and that every person whose lot it is to serve at home must back up the boys who go to make the supreme sacrifice on the battlefields of France, to the very limit of their strength and ability.

"I, as a 100 per cent. American, do hereby pledge my constant loyal and maximum effort to my company in its work and service to the United States Government and its Allies, to the end that maximum production may be secured and prompt shipment made of every order assigned to it.

"I also agree that every other interest and effort shall be subordinated to this pledge."

We have pledged our best effort, and we are proceeding to deliver it.

GEO. M. VERITY, President.

"Government May Have Anything We Make."

Inland Steel Co.,

Chicago, Ill., May 11.

Editor Manufacturers Record:

The pledge made by the steel manufacturers to take care of Government orders, regardless of other obligations, to the extent of their full production, holds good with us. Our output of steel is limited to the product of our open-hearth furnaces. We could not increase our output without building more open-hearth furnaces, another blast furnace, more coke ovens and securing an

additional supply of ore. This is not possible under existing conditions.

The Government may have anything we make. It is not requiring our entire production of merchant bars and sheets, and to a limited extent and subject to the steel not being available under Government orders, we are taking care of our old obligations on this material.

We consider our works belong to the Government; that we are operating for them to the best of our ability, and we think we can get out more and better steel than if our works were operated by the Government. So far as we know, no complaints of any consequence have been made against us for delays in furnishing steel on Government orders. G. H. JONES, Vice-President.

Midvale Company Building New Plate Mill.

Midvale Steel & Ordnance Co.,

New York, May 13.

Editor Manufacturers Record:

We are building a new plate mill at the Johnstown plant, Cambria Steel Co., which will probably be in operation in July.

In this connection you may be interested in the enclosed poster which we are using in a campaign to encourage our employees to work with the greatest possible regularity. Wm. B. DICKSON, Vice-President.

[The poster to which Mr. Dickson calls attention is a superb presentation of the whole situation. It is printed in big type on a large sheet of fine paper about 3.4x2.3 feet, and can easily be read at a little distance by every workman. Some poster pledge of this kind, printed in big type on fine paper, should be conspicuously placed at many points in every manufacturing enterprise in America. The poster of the Midvale company is printed in full elsewhere in this issue.—Editor MANUFACTURERS RECORD.]

Most Manufacturers Giving 100 Per Cent. of Product to Government.

Jones & Laughlin Steel Co.,

Pittsburgh, Pa., May 11.

Editor Manufacturers Record:

I feel there need be no concern on this question. The manufacturers of steel have increased their tonnage during the past few years, and are still willing to increase further if the Government requires the material. Most of the manufacturers are now giving 100 per cent. of their product to the Government, and will continue to do whatever is necessary to win the war.

WILLIS L. KING, Vice-President.

Increased Production Possible Only Through United Effort of All Concerned.

The Otis Steel Co.,

Cleveland, O., May 10.

Editor Manufacturers Record:

You have asked us for our opinion on the ability of steel men to meet Government requirements, and what we are doing to increase output.

On the first question no steel producer, in our opinion, can be as well informed as Mr. Replogle is, for he has not only had experience as a steelmaker, but he also has before him full reports upon the actual and the possible performance of every producer in the country. Furthermore, he knows the present and the near future requirements for war purposes. Therefore, full credence should be given his statement that an actual and serious shortage of steel products exists and that it will become more acute unless we can all work more nearly to capacity.

In his talk at the recent meeting in New York he

said that if we had adequate transportation service, all of the labor we could use and sufficient fuel we could meet the war demand for our products. This should emphasize in the mind of everyone actively concerned the importance of striving to strengthen these three weak points. United effort along that line will surely stimulate production more promptly than it could be increased by additions to works or new construction.

Our own situation has been improving remarkably since the January fuel shortage was overcome. In March we broke our best previous record for one month's production, and our output in April was still larger. Among the encouraging factors in this improvement has been the performance of the men in our works. Their attitude has been enthusiastically patriotic. They have worked with a spirit rarely, if ever, evinced before. With their continued co-operation we feel assured of constantly running closer to capacity, thus steadily increasing our output.

In our opinion, it will be necessary for every steel works and mill to speed up if we are to nearly approach satisfying the war needs with our production, and no one can afford to relax in such effort if only for selfish reasons, aside from love of country and recognition of our obligation to the Allies for keeping the enemy from our shores.

H. E. HIGGINS, Vice-President.

Unquestionably Steel Industry Will Measure Up to Situation.

Central Iron & Steel Co.,

Harrisburg, Pa., May 11.

Editor Manufacturers Record:

The meeting referred to brought forth splendid responses from all of the companies represented, and there is no question in our mind that the steel industry will measure up in this situation as they have always measured up in every emergency, and without question can be counted on to do their utmost in every way in co-operating with the Government.

As far as we are concerned, we are furnishing 90 per cent. and over of our product on Government requirements. During the month of April 89½ per cent. of our shipments were applied on Government orders, while during the week ending May 4 96 per cent. went for like purposes.

FRANCIS J. HALL, Vice-President.

Government's Requirements Must and Will Be Taken Care Of.

Bethlehem Steel Corporation,

South Bethlehem, Pa., May 10.

Editor Manufacturers Record:

Replying to your telegram, the Government's steel requirements must and will be taken care of by the steel industry. Our company has pledged to utilize the full capacity of all its properties in serving first the United States Government and its allies. All general officials of the corporation and its subsidiaries, as well as all superintendents and foremen, have individually agreed to give their best and every effort in support of their companies' pledge.

We spent last year in extensions to plants approximately \$61,000,000, and would expect to spend at least half that amount this year. E. G. GRACE, President.

Increased Output Hampered by Inadequate Supplies of Raw Materials and Adverse Labor Conditions.

Gulf States Steel Co.,

Birmingham, Ala., May 15.

Editor Manufacturers Record:

I acknowledge your telegram, inquiring as to the ability of steel men to meet the requirements and any action that we will take looking toward increased output.

We are not in a position today to take any action toward an increased output. We could furnish the money for it and the good-will and the executive ability, and there our power ends.

We need an adequate supply of raw materials and the conservation of our men. Raw material of every description is scarce in this district, and what is produced is to a large extent inferior in quality. Many miners, both in ore and coal mines, are openly indifferent as to the production of clean ore and coal, and the volume of slate and dirt which goes through the coke ovens and the blast furnaces of the district, and which requires additional limestone to flux it and additional coke to

use it, is decreasing the production of pig-iron and increasing that of slag.

Many of the miners are indifferent, on account of their high wages, as to working continuously, and many others, of course, have accepted the call of their country and have gone into military service. Men are scarce, and the efficiency of those remaining in some cases is reduced.

In addition to this, the pirating of labor is a serious interference. There is hardly an industrial operation in this district that is not daily attacked by labor agents trying to take men away to other places. The contractors, particularly the Du Pont people, are building for the Government nitrate or powder plants on the "cost plus" system and offering any wages that may be necessary to take men away from existing employments, and I submit that this system should be sternly controlled by the Government, as every man taken from one job to another at the expense of the Government is adding to cost at both ends and decreasing efficiency of the nation's work as a whole.

I wrote to the President of the United States some months ago, respectfully suggesting that 250,000 German prisoners be brought to this country from Europe and put to work in the mines, either coal or ore (preferably non-gaseous mines). This policy would have the threefold effect of ministering to the supply of raw material for the Government, of saving the ocean tonnage required to carry their food across the Atlantic and protecting by their presence our transports returning empty from the other side.

Our gas coal supply for the gas producers is interfered with by priority orders from the Fuel Administration in favor of railroads, steamship and domestic consumption.

We find it impossible, in view of these difficulties as to ore, coal and labor, to make any present increase in output or even to maintain our normal figures. We are taking such steps as appear feasible to alleviate the situation.

JAS. BOWRON, President.

Co-operating to Fullest Possible Extent.

Atlantic Steel Co.,

Atlanta, Ga., May 11.

Editor Manufacturers Record:

So far as our company is concerned, we are more than willing to do anything that we can to further the production of steel for use in prosecuting the war, and I am sure that all others are. This was demonstrated very clearly at a meeting recently held in New York, when all those present voted unanimously to do their utmost.

We have been very much hampered during the past winter on account of shortage of coal, but for the last two months this has been normal, and we are now producing the maximum of our capacity.

THOS. K. GLENN, President.

Believes Government Requirements Will Be Met.

The Youngstown Sheet & Tube Co.,

Youngstown, O., May 10.

Editor Manufacturers Record:

We believe Government requirements will be taken care of promptly in most lines now that the steel men understand that their entire output is required. We do not anticipate increasing our output, but will do so if Government needs are not taken care of.

J. A. CAMPBELL, President.

Believes Demands Will Be Met.

Hotel Traymore,

Atlantic City, N. J., May 11.

Editor Manufacturers Record:

While the requirements of the Government for steel are necessarily large, I believe the steel industries of the country will meet the demand. F. E. CANDA, President Chrome Steel Works, New York.

Spreading the Message.

GEO. C. USHER, General Manager the Green Fuel Economizer Co., New York.

Please send us one dozen reprints of front cover page of MANUFACTURERS RECORD, dated March 28, entitled "For God's Sake, Hurry Up." We want these for postings in our factory for bulletin boards.

Schwab Shows the Power of Initiative and Driving Force and the Vital Importance of Good Roads in War Work

[Special Correspondence Manufacturers Record.]

Washington, D. C., May 13.

When the Emergency Fleet Corporation is moved from Washington to its new quarters in Philadelphia, the Government will give the greatest demonstration of motor transportation which has yet been shown the country, and incidentally will offer an argument in favor of good roads which should impress every thoughtful person.

Charles M. Schwab, when he decided to make his headquarters in the center of the shipbuilding activity, knew that he must have his big organization close around him. With characteristic energy he determined that the removal should be made without delay. No time could be lost in the tardy service of the railroad, when every moment counts in getting ships into service, and so Mr. Schwab went around the congestion which has been blocking freight and hampering industry for months, by utilizing motor trucks and the State roadways.

Two motor truck companies of 30 trucks each, manned by two men per truck, have been obtained from the Army. Capt. A. T. Moore, U. S. A., has been given full military authority to handle the move, and as soon as the Philadelphia building is ready to receive the Emergency Fleet Corporation, the equipment will be placed upon the trucks and transported overland by the excellent roads connecting the Capital.

When once the move is started the transfer will be made with the clock-like regularity of a circus in transit. At 5.30 P. M. a moving force will dismantle a designated division of the corporation's Washington office and load the furniture into the waiting motor trucks. The office employees will follow by rail. By noon the next day everything will be in place in the Philadelphia building, the clerks will be given the afternoon to arrange their household effects, and the next morning business will go on as usual. Every article to be sent is labeled and blueprints of the new quarters show its exact location. This is moving with efficiency, but without the motor trucks it would be impossible, even under the most favorable conditions in times of peace.

The motors to be used in the transfer of the Emergency Fleet Corporation are the regulation khaki-colored five-ton trucks of the Quartermaster's Department of the Army. All last winter trains of these big vehicles rumbled along the Lincoln Highway from the motor-production centers of the Middle West. It would have been wholly impracticable to ship them East by train under the paralyzed conditions on the railroads. Consequently, as rapidly as they were completed for the Government, the trucks were loaded with supplies which needed quick shipment, and started the first stage of their journey to France, the men who operated them getting a vast training experience en route.

Such a trip in the midst of winter would have been out of the question in the absence of good roads, and as the trucks continue to come East, the highways transport committee of the Council of National Defense has warned that the roads must be kept in first-class condition as a patriotic and practical necessity.

More and more the value of good roads is being impressed upon the people of the country by the use of the army motor trucks. About the camps and cantonments their work is likewise an illuminating means of instruction, and the public is learning that with the steam and electric railroads being used to their full capacity it is absolutely necessary to turn to the motor trucks as a means of securing prompt service. Not only is the motor adaptable to heavy hauling such as the removal of the Emergency Fleet Corporation, or the shipping of stores of corn and potatoes in order that no loss from germination will be sustained through delays on the railroads, but it is fast becoming a factor in local markets. Around every large city motor trucks are now bringing in vegetables and other perishable produce, and the Postoffice Department is establishing numerous parcel post routes to supply consumers direct from the farms.

This arrangement, however, is possible only where the roads are suitable. The Council of National Defense has mapped out a comprehensive system of truck

routes between the points of machine production and the seaboard, utilizing the best roads. The full development of the motor as a freight carrier depends upon the building of new roads, and this in turn depends upon the separate States and communities, which must raise the funds necessary before the Government will advance its share of 50 per cent. of the cost of building new highways.

Roads which will stand the wear of the heaviest sort of traffic must be constructed to meet the requirements of the present time. While the mileage built since the war was started has not been up to the standard, there is a noticeable improvement in the quality of the roads that are being constructed. It has been found that roads designed for the light traffic of a decade ago will not bear the strain of the new type of vehicles. Permanent roads must, therefore, be made to meet the emergency. It is useless to argue that the vehicles be made lighter at a time when heavier loads are to be carried, for the solution of the question lies in increasing the strength of the roads and the bridges to stand the traffic which the war has stimulated.

Every nation involved in the war has been forced to turn to its highways to relieve the transportation situation. War experts have said that without the wonderful system of roads in France it would have been impossible for that nation to have kept up its gallant fight. But equipped with a network of roads of the finest quality, France and her allies have been able to move their forces with rapidity to any section of the battle front and bring up supplies to maintain the fighting forces.

In the territory subjected to shell fire a repair force is constantly at work upon the roads. In this work many of the German prisoners have been employed to advantage. Men are stationed at frequent intervals with crushed stone and sand close at hand. Immediately after a shell hole is made in the roads by enemy fire the damage is quickly repaired.

So effective has been the work done on the roads by prisoners of war that the suggestion has frequently been made to employ German prisoners sent to this country in the construction and improvement of roads. No definite decision in the matter has been reached by the War Department, but it is believed that when the number of such prisoners increases, the subject will receive serious consideration.

In the present German offensive the Huns realized that their progress depended largely upon the maintenance of their lines of communication. With Teutonic efficiency they accordingly prepared great slabs of concrete to be laid as roads across the devastated country to enable them to bring up their supplies from the base. It is the accuracy of the Allies' gunfire in destroying these new roads that has hampered the German progress almost as effectively as the blows aimed at the troops themselves.

All the military value of good roads, however, is not directly in the rear of the army. The Eastern border of the United States truly has been said to be now at the first line trenches in France. The tributary territory to the force holding that line extends backward to the Pacific, and every road must be utilized in conveying supplies and reinforcements to the men who are at the front. The railroads have not been able to do this alone, nor can the motor trucks be depended upon for any great amount of assistance unless the roadways are improved and kept up to the highest degree of operation. The betterment of the national roads is, therefore, a matter of war necessity at the present time, but the expenditures involved in the improvement, fortunately, will not cease to return benefits even after the peace pact has been signed.

Mica Machinery Wanted.

W. J. BEGGS & SON, Gadsden, Ala.

Would thank you for the names of some manufacturers of mica machinery. There are large deposits of mica found in this State. We have obtained options on some of the land, and after investigations we may enter into the production of the finished products.

Industrial and Railroad Congestion in East

CAN ONLY BE RELIEVED BY TURNING FURTHER DEVELOPMENT TO THE
SOUTH AND SOUTHWEST.

[Special Correspondence Manufacturers Record.]

Washington, D. C., May 13.

Indications are not lacking that the Government, as well as many of the leaders in great industrial enterprises, has become sensible of the increasing danger of centering the vast bulk of the nation's war-making activities in the Eastern and New England States.

One of the main reasons back of the transfer of the railroads of the country to Government control during the war was to bring about greater unity of action, as also to permit the pooling of the transportation resources of the great common carriers after a manner which would not have been possible so long as they remained under private control and operation.

But this has been but a beginning toward the task of meeting the enormously increased burden imposed on the railroads by the requirements of the war. The steps now imperative to be taken are to bring about a better distribution of the burden in all parts of the country and to readjust the distribution of industrial activities to make this possible.

Soon after taking charge of the new Railroad Administration, Director-General McAdoo saw how things were tending. The congestion in the "neck of the bottle" was already present. With far freer powers of action than were possessed by the individual heads of the railroads under the earlier management, Mr. McAdoo recognized that these alone would not meet the emergency.

As a Director-General of Railways, Mr. McAdoo has found it necessary to take cognizance of the growing congestion in the Eastern States. Always the center of industrial activity, the New England and other States in the Eastern territory have vastly increased the number of their industries, putting a new tax upon the railroads, not only in carrying away the products of these factories, but in carrying the raw materials to them.

Mr. McAdoo brought this war tendency to the attention of President Wilson, setting forth the peril that would inevitably follow the piling up of war work in the Eastern States, and it is understood that the various executive departments have been asked to give consideration to this situation whenever they find it necessary to pass upon the establishment of a new industry.

There has been no determination to forbid the establishment of new war industries in the East, as it is realized that there are some cases in which the public interest can be better served; but from a transportation standpoint, it is imperative that the trend should be encouraged in another direction. There will be no further encouragement of the concentration of industrial efforts in the congested regions. Wherever possible, the departments will urge the establishment of new industries in the less congested sections, believing that the whole country will be better served by this equalizing of war industries.

How the situation serves to hinder to the point of possibly complete disruption of the nation's war-making powers is capable of being illustrated in several ways. In fact, the congestion is threefold where the transportation systems are overtaxed. There is the immense quantity of coal that must be carried to the big manufacturing plants. Then comes the burden on the lines for the transportation of raw materials. And, finally, the blocking process is repeated when it comes to carrying out the finished products.

When the interdepartmental nitrate plant board acted upon the provisions of the law in selecting some interior part of the country for the establishment of the Government nitrate plants, it merely followed instructions which were based on considerations of a military character. The idea was to have these plants so located that they would not be readily vulnerable to the attacks of an enemy.

The new movement is economic, yet not wholly divorced from military considerations, seeing that every enterprise carried on today is more or less directly

connected with the successful prosecution of the war against Germany. Even where protection from attack is not involved, the breaking up of the concentration of the great war industries in the East is recognized as essential to success.

The Government is now projecting an enormous gun factory, which, it is understood, is to be located in some part of the Middle West. This somewhat indefinite term covers a wide territory, and may take in the Southwest or possibly the Southern States. No specific information has as yet been given out. But back of the general suggestion is the idea of effecting a better distribution of plants and labor, and to balance more satisfactorily the demands upon the transportation facilities of the country.

Some opposition has been offered by the industrial leaders to the general plan on the plea that a certain "atmosphere" will be found lacking in the event that the big enterprises are removed from their familiar centers of gathering. This view embraces an appreciation of psychological conditions, which, in the minds of its advocates, makes of the manufacturing and industrial centers of the Eastern States and New England superior points for the development of large undertakings. They hold that the skilled labor is on the ground, accustomed to the environment, and that the workers, from the big men down through the foremen to the thousands of employees, will work better where they are. There is probably much less in this view than is thought. At all events, Birmingham, Newport News, Norfolk, Atlanta, Chattanooga, Richmond, Knoxville and a host of Southeastern and interior Southern cities testify to the presence of successful enterprises, large bodies of highly-trained experts in mechanical trades and the full measure of the spirit necessary to the fulfillment of any plans, however ambitious they may be. These convincing examples can be duplicated in scores of enterprising business communities in the South and Southwest, as they should be if the problem of transportation is to be solved, and as they will be if the Government executives entrusted with the task of straightening out the tangle proceed logically along the line of their evident convictions.

GRAPHITE PRODUCTION IN 1917.

Big Supply Needed for War Purposes.

The actual mine production of crystalline graphite during the last year showed a notable gain, according to the United States Geological Survey. The total production, including stocks on hand at the mines, was about 14,000,000 pounds in 1917, as against about 10,900,000 pounds in 1916.

Alabama was the largest producer of crystalline graphite in 1917, the amount marketed being 6,223,095 pounds; New York came next with a production of 2,941,040 pounds, and Pennsylvania third with a production of 804,945 pounds. California, Montana and Texas also made a combined production of 545,000 pounds.

Amorphous graphite was produced in 1917 by five mines in Colorado, Michigan, Nevada and Rhode Island. The production was 8301 tons, compared with 2622 tons in 1916.

Artificial graphite is also manufactured to a limited extent from anthracite coal or from petroleum coke, and is used mainly in lubricants, paints, foundry facings, boiler-scale preventives and battery fillers, and it is particularly adapted for making electrodes, the demand for which has greatly increased during the last three years on account of the remarkable growth of certain electrochemical industries.

According to figures furnished by the Department of Commerce, the imports of graphite in 1917 amounted to 42,609 short tons. The imports the year before the war began were 28,885 short tons. The exports in 1917, principally to Great Britain, France, Canada and

Italy, amounted to 2576 short tons, compared with 798 tons in 1916.

Even at present war prices the miners in this country who are working disseminated flake deposits must, according to the Geological Survey's report, depend on their No. 1 and No. 2 flake for their profit. The Survey says: "Graphite dust is merely a by-product, and is salable only at a very low price. Improved methods of graphite milling, adopted during the last year, promise to increase largely the production of flake of better grade. While flake graphite holds its present prices profits can be made by a mill of almost any type, but after the war only the mills that are most efficiently managed can hope to survive. The Madagascar production is increasing rapidly, and after the war domestic producers will have to meet competition from Madagascar as well as from Ceylon. The domestic producers, now that their product is in good demand, should adopt fixed standards for the different grades of flake, in order that, when imported graphite comes on the market more freely, they may be better able to meet the competition, or they should so regulate their methods of milling that they may be able to prepare special grades based on the purchaser's specifications.

"The figures available indicate that a domestic production of 10,000 tons of flake graphite in 1918 is well within the capacity of the mills already established or under construction. This is more than the amount of domestic material usually required by crucible manufacturers, and unless the crucible trade should use a larger proportion of the domestic product than formerly many mills will have difficulty in disposing of their graphite, and the production will not greatly exceed that of 1916.

"About 30,000 tons of graphite suitable for crucible manufacture will be needed in 1918. If freight and market conditions and an improved labor situation favor the shipment of domestic graphite, about 8000 tons of flake of crucible grade, exclusive of dust, can be marketed in this country in 1918, an increase of more than 100 per cent. over the production in 1917. If the freight conditions that prevailed in the autumn of 1917 should recur, the domestic production of No. 1 and No. 2 flake will hardly exceed 2500 tons. If the domestic production could be stimulated to its maximum capacity, reasonable assurance of a steady market given and encouragement offered to new plants, a production as high as 12,000 tons might be reached. The situation is more favorable with respect to non-crucible graphite. The requirements for 1918 will be between 28,000 and 32,000 tons, which may probably be supplied by domestic, artificial and Mexican production."

Louisiana's Record-Breaking Potato Crop.

New Orleans, La., May 10.—[Special.]—Louisiana's record-breaking Irish potato crop, which is about ready for the market, is estimated at 3,004,156 bushels, more than double that of last year, although the acreage increase is only 72 per cent. John S. Denée, State head of the Bureau of Crop Estimates, makes the above announcement. Obviously only the commercial crop is considered, but the potatoes produced by the home gardens will increase the production by at least 100,000 bushels.

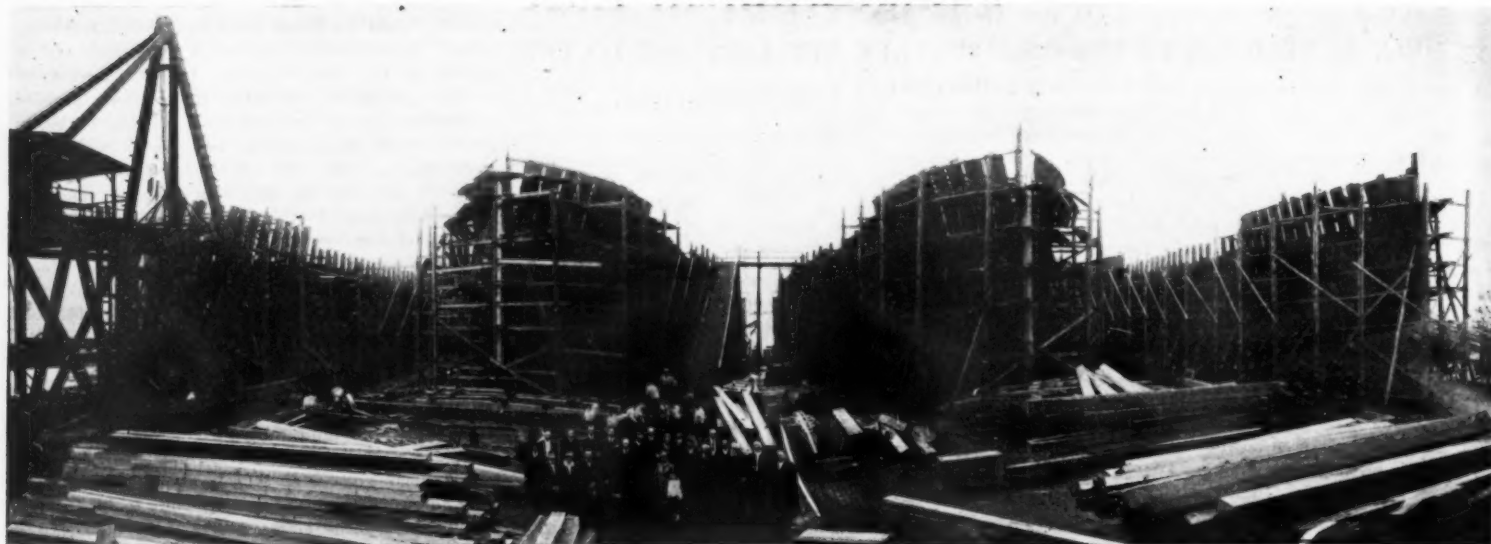
The acreage is given as 39,015, distributed through the parishes as follows: Acadia, 250; Ascension, 300; Assumption, 150; Avoyelles, 1200; Bossier, 250; Caddo, 400; Calcasieu, 200; Caldwell, 90; Cameron, 20; De Soto, 200; East Baton Rouge, 800; East Feliciana, 1500; Iberia, 1300; Iberville, 2000; Jefferson, 1000; Lafayette, 600; Lafourche, 600; Livingston, 300; Madison, 100; Natchitoches, 275; Plaquemines, 1000; Pointe Coupee, 1500; Rapides, 2500; St. Bernard, 400; St. Charles, 900; St. Helena, 300; St. John the Baptist, 500; St. Landry, 1805; St. Mary, 1000; St. Martin, 1500; Tangipahoe, 200; Terrebonne, 1500; Washington, 125; West Baton Rouge, 100; West Carroll, 200; West Feliciana, 1600.

\$6,250,000 By-product Coke Enterprise.

Extensive plans for the manufacture of coke and the various chemicals obtainable by the by-product type of oven are being formulated by the Fairmont By-product Corporation of Fairmont, W. Va. This company has been chartered with an authorized capital of \$500,000 by O. F. Lough, C. E. Smith, E. B. Moore, F. B. Pryor and W. J. Wiegel. Its ultimate plans are said to contemplate an investment of \$5,500,000 for building 110 by-product coke ovens and \$750,000 for constructing an industrial city with the usual public utilities for the employees of the proposed plant.

Great Shipbuilding Activity at Pascagoula and Vicinity

[Special Correspondence Manufacturers Record.]



SHIPYARD SCENE AT PASCAGOULA, INDICATING MAGNITUDE OF NEWLY CREATED INDUSTRY.

Pascagoula, Miss., May 10.

The work lately commenced by the International Shipbuilding Co. at Pascagoula, of constructing a shipyard for the building of steel ships in addition to the wooden ships already under way, makes this one of the leading centers for shipbuilding in the South.

The International Shipbuilding Co. has now approximately a mile of river front on the East Pascagoula River and 100 acres of land. An accompanying photograph shows a view of this yard, and seven of the eight ways for steel ships may be seen in the foreground. There will be nine altogether, each 580 feet in length and 52 feet beam. It is the purpose to have these nine steel ships under construction at one time. In the background five wooden ships may be seen in an advanced stage of construction and keels for Nos. 6 and 7 have been laid and the ways for Nos. 8 and 9 are now ready. Twelve of these wooden ships will be built, each of 3500 tons capacity, and the first, The City of Pascagoula, will be ready for launching within a few weeks.

South of this yard (but not shown in the picture) dredgeboat No. 2 is at work dredging a canal from the river inland, which will extend from the river 1600 feet to Grants Bayou, then northerly 500 feet more, or a total of 2100 feet, and will have width of 150 feet and be 20 feet in depth. This canal will be used for the purpose of laying the iron ships when launched and equipping them. In addition to this, Lake Yazoo, nearly 40 acres in extent, and which connects with the canal, will be dredged out to a depth of 20 feet and be used as an anchorage for the steel ships.

Piling for the foundations of a rigging-house, 170x75 feet long, is now being driven, and besides, the foundations of a foundry and machine shop of steel, each 580x76 feet, are being made ready. A boiler-house, 74.75x253 feet, and a forgeroom, 76x300 feet, are some of the buildings that are being erected at this end of the yard. An electric power-house, of brick, 54x75 feet,

has just been finished. There is also for the steel yard a machine shop 245.9x76.75 feet, all of steel construction.

The southern end of the yard shows The City of Gulfport lying in the dock, which represents the type of wooden vessel that will be turned out at the yard. She is a five-masted barkentine, with auxiliary gasoline engines of 400 horse-power. The City of Gulfport was built at Orange, Tex., by the International Shipbuilding Co.

When the International Shipbuilding Co., on the 21st of June, 1917, commenced its great work, with characteristic energy and foresight, it attacked the problem of housing its employees, knowing full well that the work could only be carried on with contented laborers, and to secure this contentment the laborer must be well housed as well as well paid. It began at once the work of building its own village, and the accompanying photograph gives a bird's-eye view of one of the streets of this little city that has sprung up as though by magic. The larger houses are of four and five rooms each, and each house is of a different style of architecture. Each house is neatly painted and papered. No two houses have the same pattern of paper, and no two rooms in the house have the same color scheme in the papering, and the houses are fitted up with grates and with tile mantels. Each mantel has a different style of tiling. Each house has room for a garden, and many of the houses have spring gardens and flowers planted and in bloom. In the center of the village picture may be seen the 50-room hotel erected for the use of the employees of the company. Some 300 houses like those in the picture are now being erected, and across the bayou a second village is under way, which will be connected with the first by improved streets, and the International Shipbuilding Co. will have its own sewerage, light and water systems. A glance at the architecture of the houses and the color scheme of their

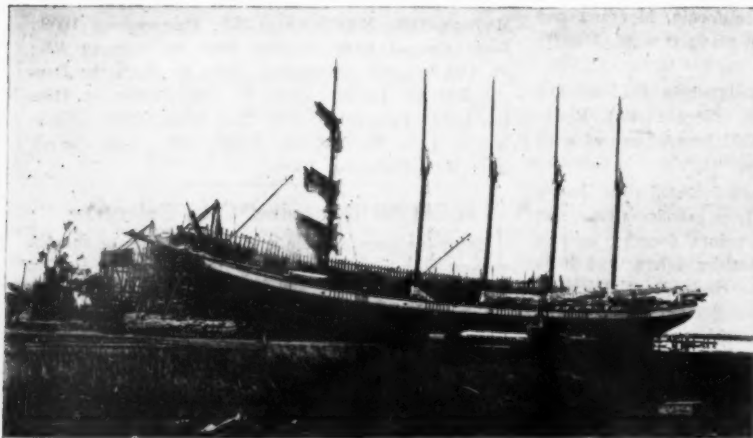
exteriors and interiors is sufficient to inform one that the soul of this enterprise is an Italian, for your Italian loves beauty of form, bright colors and sunshine. The man who directs this enterprise, Mr. Henry Piaggio, and the correlated ones of Orange, Tex., and Houston, is evidently a man of great executive genius. He is a native of America, but, as his name indicates, of Italian parentage.

On August 1, 1917, Mr. O. E. Hodge of Ruston, La., having organized the Hodge Ship Co. and having secured on Beardsley's Lake, on the Escatawpa River at Moss Point, 40 acres of land, began the work of erecting what is now the great Hodge Ship Co.'s shipyard at Moss Point. The illustration across the page shows four large wooden vessels of 3500 tons each in an advanced stage of construction at the Hodge shipyard, and they are being built for the Emergency Fleet Corporation.

The Hodge yard is one of the best equipped that has come under the writer's observation, everything being arranged to economize time and labor. From the lumber yard at one end of the plant a piece of timber starts moving and continues to move in one direction until it reaches its ultimate destination in one of the big wooden ships. There is no lost motion. There is in connection with the plant a complete machine shop, 40x300 feet; planers, drill presses and power-house for supplying compressed air and electric light and power.

The company's plant stands on an elevation of 22 feet above the Escatawpa River, and is eight miles inland. As the water of the Escatawpa River is fresh, timber and other wooden material may be stored in it for an indefinite period of time free from the attacks of the teredo navalis, or ship worm, which infests only salt water.

The company has also attacked the housing problem in an intelligent manner, having put up two 50-room hotels and is now erecting a number of excellent cot-



CITY OF GULFPORT, TYPE OF WOODEN VESSEL BEING BUILT AT PASCAGOULA. HOUSES ERECTED BY INTERNATIONAL SHIPBUILDING CO. AT PASCAGOULA FOR ITS EMPLOYEES.

tages of five and three rooms each for the use of its employees.

The members of the Hodge Ship Co. are: Mr. O. E. Hodge, president; E. H. Allen, vice-president; J. D. Barksdale, secretary; J. S. Hunt, treasurer. Mr. O. E. Hodge is a member of the Huie-Hodge Lumber Co., Hodge, La., and is president of the Lincoln Parish Bank, Ruston, La., and president of the North Louisiana & Gulf Railroad, Ruston, La.

There is also at Moss Point, on the East Pascagoula River, about one mile from the Hodge Ship Co., the shipyard of the Dantzer Shipbuilding & Dock Co., of which L. N. Dantzer, Jr., of Biloxi is the president, the other members being J. L. Dantzer of New Orleans, Bruno Dantzer of Gulfport and A. F. Dantzer of Moss Point. This company has a contract to build six wooden vessels for the Emergency Fleet Corporation, and its yard stands on a high bluff on the East Pascagoula River, eight miles inland from its mouth. It has now the frames of four 3500-ton vessels nearly complete, and has a fully equipped shipyard. The company has built a hotel of 100 rooms for the use of its employees and a number of houses.

The John De Angelo shipyard, which is being conducted by Steven and James De Angelo, sons of the late John De Angelo, is on the Escatawpa River in the city of Moss Point. The De Angelo yard is constructing three and four-masted schooners of 300 to 500 tons each.

The shipyard of the Dierks-Blodgett Company is in the city of Pascagoula. It has four wooden vessels of 3500 tons each under construction for the Emergency Fleet Corporation. They are far advanced, and one of them, The Pascagoula, will be ready for launching within a short time. The company has a contract for six vessels, and, like the Hodge Ship Co., will fully equip its vessels when completed. This company has taken two-year leases on all the houses in the city of Pascagoula that it could find and refitted them for its employees, and besides has erected a 50-room lodging-house for its workmen.

One may judge of the effect of the shipbuilding activity on the Gulf coast when, since June 21 last, when the work commenced, the population of Pascagoula has doubled, and while in the old times during the lumber manufacturing days a payroll of \$30,000 annually was thought to spell prosperity, today the payroll in the city of Pascagoula alone, not including Moss Point, is at least \$20,000 weekly.

The International Shipbuilding Co. has now some 1200 men employed, and when the active work of constructing steel ships commences some 3000 skilled laborers will be employed. This economic revolution has not affected Pascagoula and vicinity only, but the stimulus is felt in the cities of Gulfport and Biloxi, each one of which proposes to build houses to accommodate 3000 people employed in the Pascagoula shipyards, and will request the Louisville & Nashville Railroad Co. to put on a special train for the accommodation of workmen living along the coast so they may work at the shipyards and dwell at other points along the coast.

The completion of the Spanish Trail makes it possible for parties owning motor cars to live at Ocean Springs, Biloxi, Gulfport, etc., and go to Pascagoula for work in the shipyards.

The Legislature of Mississippi for 1917 has authorized the counties of the State to issue bonds for the purpose of building interurban electric railways and to co-operate with the cities of other States in such enterprises, and there is being agitated the project of building an interurban line from Mobile to New Orleans via Pascagoula, Biloxi, Gulfport, etc., and the continuous

growth and development of the shipyard industry along the coast may be the means of bringing this project into being.

While on a recent business visit to Gulfport, Miss., the writer accidentally ran into a shipyard, that of the Gulfport Shipbuilding Co., which loomed up big on the horizon and gave promise of greater things yet to come. It is situated near the pier of the Gulf & Ship Island Railroad, with 18 feet of water in its launching basin. The company was organized on May 1, 1917, and its officers are: W. T. Stewart, president; B. E. Eaton, vice-president; J. A. Bandi, secretary and treasurer; T. M. Favre, manager, and J. E. Gordon, auditor and purchasing agent.

Work was begun last July, and the company has now

Roberts, New York, vice-president, and J. J. Dwyer of Biloxi, Miss., secretary and treasurer.

A few hundred yards west of the Mississippi Shipbuilding Corporation's yard is the yard of the Biloxi Shipyard and Box Factory. This plant has its own planer, sawmills, drykiln, and has on the stocks one four-masted schooner, 200 feet long, 38 feet beam, and 14 feet depth of hold. She will have a 300-horse-power auxiliary crude-oil-burning engine, and her estimated tonnage is 1200 tons. The box factory in connection with this yard has a capacity of 25,000 boxes monthly. The officers of the company are J. F. Stuard, president, Gulfport, Miss.; Mrs. J. C. Brander, vice-president, Biloxi, Miss.; Francis Brander, secretary and treasurer and general manager, Biloxi, Miss.



INTERNATIONAL SHIPBUILDING CO.'S NEW YARD AT PASCAGOULA FOR STEEL SHIPS, SEVEN OF EIGHT WAYS SHOWN IN FOREGROUND; WOODEN SHIPYARD IN BACKGROUND.

in the stocks and rapidly approaching completion two four-masted schooners, 200 feet in length, with an estimated net tonnage of 720 tons. The vessels are being built for J. Jamerville and associates, Gulfport.

This company is also building three oil barges for the Caribbean Petroleum Co., Philadelphia, Pa. They will be 200 feet in length, and each will carry 1400 tons of crude oil. The first of the barges, Caracas, has been successfully launched. The work on the schooners and barges is much more advanced than shows in the accompanying photographs. The management of this company states that the work now under way is only the beginning of its enterprise.

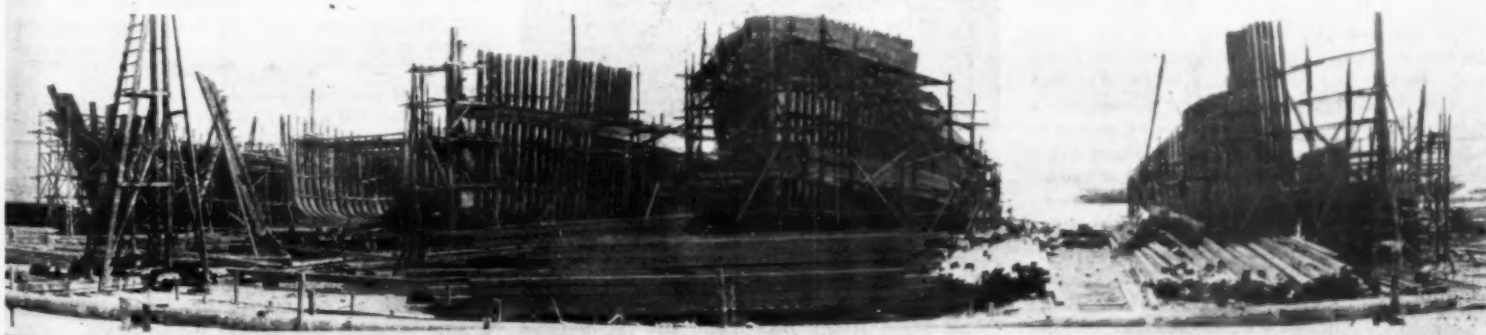
The Mississippi Shipbuilding Corporation has 30 acres upon the "Back Bay" of Biloxi, near its conjunction with the Bay of Biloxi, and here it has a fully-equipped shipyard. It has now on the stocks and will be ready for launching in about 10 days on four-masted auxiliary schooner, with 300 horse-power crude-oil-burning engines. She measures 193 feet length, 39 feet beam, and molded depth of hold 18 feet. Her estimated tonnage is 1500 tons. She is being built for a private owner under Lloyds supervision for 12 years' service.

The Mississippi Shipbuilding Corporation began work on August 1, 1917, and its officers are W. W. Dwyer (32 Broadway, New York), president; Llewellyn

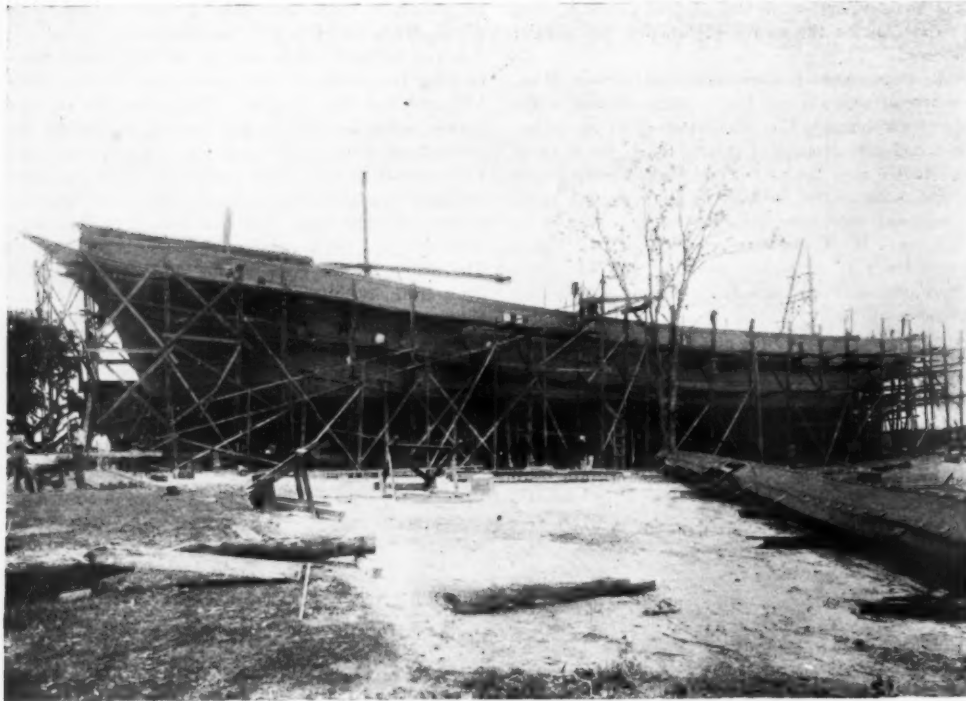
The work of planking the schooner that this company is building is progressing rapidly and the vessel will soon be ready for launching.

A short distance west of the Biloxi Shipyard and Box Factory is the plant of the Coast Shipyard, also a new enterprise. It has on the stocks and now being planked one four-masted schooner, 214 feet long, 41 feet beam, and 21 feet depth of hold. She will be equipped with 300-horse-power auxiliary crude-oil-burning engine, and is being built for the Coast Shipyard Co. The officers of the company are D. J. Gay, president; F. V. Pringle, vice-president, and W. A. McInnis, secretary and treasurer and manager, all of Biloxi, Miss.

All three of these shipyards are on "the Back Bay of Biloxi," which is several miles in the interior and completely land-locked. The Back Bay of Biloxi is really a bayou that debouches into Biloxi Bay, and, like all bayous on the Gulf coast, is very deep. The Back Bay is broad enough and deep enough to float a battleship. The entrance to this inland harbor is barred by the bars of sand and mud that formed at its mouth. Biloxi Bay is about two miles wide and four miles deep, and offers no special obstacles to dredging. Mr. J. J. Dwyer of the Mississippi Shipbuilding Corporation and the writer calculated that the cost would not exceed 10 cents per cubic yard. Back Bay, where these yards are located,



SHIPS BEING BUILT AT GULFPORT BY THE GULFPORT SHIPBUILDING CO.



WOODEN SCHOONER UNDER CONSTRUCTION BY MISSISSIPPI SHIP CORPORATION, BILOXI, MISS.

are on elevated plateaus, which are on both sides of this harbor and which range from 12 to 20 feet above high-water mark. An electric car line runs from the Louisville & Nashville Railroad to within a few hundred yards of these shipyards, fare five cents.

The cities of Gulfport and Biloxi are each preparing to make accommodations for 3000 workmen for the shipyards at Pascagoula and vicinity, and the Louisville & Nashville Railroad will be asked to run a special train

morning and night to and from coast points for the accommodation of shipyard workers.

The International Shipbuilding Co. has purchased a large tract of land in the city of Pascagoula near the electric car line, which it will use for the building of cottages for its colored employees. This company in the new town it is building is now erecting several two-story houses, and material for its yard for steel ships is constantly arriving. **CHARLES E. CHIDSEY.**

A SHIP A DAY IN SOUTHERN YARDS.

Present Activity Looks to Early Realization of Quantity Production—Some 30 Southern-Built Ships Now in Service.

New Orleans, La., May 9.—[Special.]—Gulf Coast yards will this week put in the water four and possibly five wooden ships for coastwise and transatlantic war service, it was announced today at the offices of the Southern Pine Association. Among these vessels will be the largest wooden steamer launched for the Government since the inauguration of the Emergency Fleet Corporation's shipbuilding program.

The Tampa Dock Co. yesterday successfully floated at its Tampa (Fla.) plant the second Ferris type hull completed in the South, the first having been launched nearly three weeks ago by the Universal Shipbuilding Co. at Houston, Tex.; W. C. McGowan, district supervisor of the Emergency Fleet Corporation, and other notables were present at the Tampa ceremonies.

The National Shipbuilding Co. at Orange, Tex., will launch on Saturday the City of Bonham, the third 4700-ton vessel turned out at that plant. Previous ships of the same type launched by the National Company are the War Mystery and the War Marvel. This design of vessel, with some modifications, has been adopted by the Emergency Fleet Corporation in place of the 3500-ton Ferris model, for future construction along the Atlantic and Gulf. The City of Bonham will be the first 4700-ton wooden ship put in the water for the Emergency Fleet Corporation, the previous two having been built for the Cunard line. The War Mystery has been equipped with machinery, and is now ready to go into the overseas trade, carrying supplies to our Allies. She will be followed shortly by the War Marvel. The National Company expects to complete a ship from now on every two to three weeks, as long as the need for ocean tonnage continues. Immediately after each ship is launched, construction of another vessel begins on the emptied way.

The Beaumont Drydock & Shipbuilding Co., Beaumont, Tex., expects to slide a Ferris hull off the ways within two or three days.

The Mississippi Shipbuilding Company will launch at its Biloxi plant this week a large auxiliary schooner. Another of the Piaggia vessels, for use of the Italian

Government, will be launched at Orange shortly. Five of the Piaggia ships are already in service.

The Dierks-Blodgett Company will put a Ferris hull in the water at Moss Point, Miss., between May 10 and May 15. About the same time a Ferris hull will be completed by the Jahncke Shipbuilding Co. at Madisonville, La.

"Between 25 and 30 wooden ships built in the South since the beginning of the war, principally for private interests, are today lending effective aid to our country and its Allies," said J. E. Rhodes, secretary-manager of the Southern Pine Association, today. "These ships, one of which has been operating successfully more than a year, have thoroughly demonstrated the practicability of present methods of wooden ship construction."

"The prediction of a wooden ship a day turned out in the South will soon be a reality. Rapid progress is being made in all wooden yards, which are fully supplied with Southern pine timbers. Wooden ships will prove an important, if not a vital, factor in our prosecution of the war."

Concrete Boat Has Been Successfully Repaired

Mobile, Ala., May 10.—[Special.]—Mobile is probably the first city in America to have successfully built and put in commission a concrete craft. A barge built



CONCRETE BARGE OF THE GABELLINI TYPE, BUILT AT MOBILE, ALA.

in Mobile several years ago is now doing successful service at a Pascagoula (Miss.) shipyard.

The industry goes back to eight years ago. Dr. Henry Goldthwaite, at one time a quarantine physician in the United States Health Department, was the organizer of a company here to build concrete barges. With him

were associated his father-in-law, Rittenhouse Moore, Capt. A. C. Danner and Horace Turner, three other Mobilians.

While touring Italy Dr. Goldthwaite studied the use of concrete by Italians in building pontoons for bridges. He was much impressed. Upon returning to America he decided that concrete could be successfully used in shipbuilding, as he knew that the Italian pontoons were a success. The company was soon organized.

That his company would have full benefit of the practical knowledge of concrete work as carried on in Italy, three Italians were induced by Dr. Goldthwaite to come to Mobile and assist in the industry. The trio of Italians invested about \$5000 in the plant. The plant was built on Pinto Island, opposite the city of Mobile, which island is now the home of various shipbuilding establishments.

Several small barges were constructed, but because of their smallness they were not considered of use and were never put in service. Finally a large barge was completed and launched as a practical evidence of concrete shipbuilding.

The expense of construction had been so high it was decided that the production cost made concrete vessels prohibitive. That caused the industry to die a natural death. Three broken sons of Italy later returned to their homes, disheartened and discouraged with their experience in American industrial enterprises.

It is now believed, however, that the industry was a failure because of poor management rather than costly production. The Italians were absolutely unacquainted with the American way of doing things. They did not know how to handle labor and were practically at sea in what they were doing the entire time that they were here. And because Mobile men interested in the industry knew practically nothing of the enterprise they could offer little help.

The barge that was built at the Pinto plant was carried to One-mile Creek during the storm of July, 1916. The craft was deposited high on two pilings which pierced its bottom.

A towboat company later took the barge off the piling after patching the holes, placed the barge again in commission and sold it to the Henry Piaggio interests at Pascagoula. Reports since received say the barge has given practical service.

The manner in which the barge withstood that memorable storm and the possibility of quick repair after two large holes had been torn in its bottom is pointed to as evidence of the stability of concrete ships.

This barge was built much on the order of that now being pursued by modern concrete shipbuilders. It is a molded craft, reinforced by steel.

Tests have proved that clean, sharp sand, obtainable in inexhaustible quantities near Mobile, is ideal for concrete work. Recently Federal experts examined these deposits, and after assembling this and other data, Mobile was recommended, according to Washington dispatches, as one of five places in the United States for the building of concrete ships by the Government. The examination of Mobile was made by shipping board experts. The sand is said to be absolutely devoid of soil which renders the material unfit for concrete work. Furthermore, the sand can be barged to Mobile at very low cost.

So, after all, Mobile, the pioneer American city in concrete shipbuilding, may be rewarded by the Government by a permanent industry for concrete ships.

New Record Keel Laying Made on the Pacific Coast an Example for Other Shipyards.

C. A. D. Bayley, vice-president of the Foundation Company, in charge of the shipbuilding department, has brought back from the Pacific coast photographs which show the laying of the keel of a 3000-ton ship in 1 minute and 45 seconds, or one-sixth of the record time made after the launching of the United States steamship Accoma at the Passaic River yards of the same company.

This feat was made possible by careful drilling of a force of over 100 men at each of the previous launchings. At first the work could not be completed in less than 20 minutes, but as the men became more experienced this time was cut to 16 minutes, 6½ minutes, and finally to the record time of 105 seconds. Two men were assigned to build up each of the 50 keel blocks as soon as they were cleared by the moving ship. At the same time the first sections of the new keel were lowered to place by the derricks serving the ways. The moment the slings were released the derricks rushed the succeeding sections into line, so that the entire keel

was laid, trued up and clamped in a minute and three-quarters.

In spite of the incredibly short time of this record, the superintendent of the yard is developing plans which he believes will result in even quicker work.

Foundation Company's New Orleans Shipyard.

Plans and specifications have been completed for the \$1,250,000 shipyard recently announced as to be established at New Orleans by the Foundation Company of New York. This enterprise will represent an investment of \$750,000 for construction and \$500,000 for the machinery with other mechanical equipment required, the entire plant to occupy an 80-acre site. The plant buildings will have a floor space of six acres, and they will include a machine shop, a fabricating shop, an office structure and others. All the building materials and the machinery have been ordered, being now en route to New Orleans.

This plant will have four shipways, and steamships of a new unsinkable type, 4200-ton vessels, will be constructed. It will require 2500 men for its operation, and 1500 men will be employed during its construction. The company has a contract from the French Government for building five steel steamships of the unsinkable type, and it is expected that the first vessel will be launched by December. This will be the Foundation Company's fourteenth shipyard, and a total of 15,000 men are employed upon ship construction in the various Foundation plants throughout the country.

Shipbuilding Notes.

Plans and specifications have been completed for the marine ways, with accompanying improvements, which the Tampa (Fla.) Dock Co. will build in accordance with its recent announcement. The ways will accommodate vessels up to 6300 tons and have a deadweight lifting power of 2500 tons. It will cost \$100,000, while \$125,000 will be the investment for shops and \$25,000 for dredging. This company builds both steel and wood steamships.

Great Activity in Alabama Graphite Industry.

Alabama graphite mines furnished in 1918 about 59 per cent. of the quantity of domestic crystalline graphite produced, and 66 per cent. of its value, according to the United States Geological Survey. This was an increase of 19 per cent. in quantity and of 46 per cent. in value as compared with 1917, and three times the quantity and eight times the value of the production of Alabama in 1913. Sales were reported by 14 companies in 1917, and 25 others have begun or expect to begin operations in 1918. Work has been most active in the Ashland district. There are 11 producing companies in Clay county, two in Coosa county and one in Chilton county. Only a small part of the graphite-bearing area is under exploitation, and the plants of most of the operating companies are near the power lines of the Alabama Power Co.

The embargo on freight shipments and the shortage of labor during the later part of 1917 seriously affected production in Alabama, for many of the mines were unable to make shipments to the Northern markets. The production during the last three months in 1917 was only about 25 per cent. of the maximum capacity of the mills.

The Alabama flake graphite produced at different mines varies greatly in purity, and lack of standardization hinders the full development of this valuable national resource. A few companies produce a No. 1 flake containing 90 per cent. of carbon; others maintain an 85 per cent. standard; and some others market flake averaging only about 80 per cent.

Timber Requirements for Irrigation Canals.

El Paso, Tex., May 10.—[Special.]—The United States Reclamation Service has received bids for approximately 3,500,000 feet of lumber to be used in the construction of irrigation and drainage canals in the Mesilla and El Paso districts of the Rio Grande. It is stated that the final awards of the contracts will be made by the War Purchasing Board at Washington, which has authority to fix prices on old lumber purchased for Government use. Bids were submitted by lumber manufacturers of Texas, Oregon, Louisiana, Washington, New Mexico and California. The bids were referred to the El Paso office of the Reclamation Service for recommendation. It is not stated how soon the awards will be made.

How England Has Reduced the Liquor Trade

CONSERVING ALL FOODSTUFFS AND ELIMINATING USE OF FOODSTUFFS FOR ALCOHOLIC BEVERAGES, ENGLAND SETS AMERICA AN EXAMPLE.

[Special Correspondence Manufacturers Record.]

Washington, D. C., May 4.—In a recent article in the MANUFACTURERS RECORD some space was devoted to a consideration of the insidious German propaganda in the United States, with especial reference to the false statements circulated as to the use of cereals exported from the United States for the manufacture of intoxicants in Great Britain.

As then indicated, the circulation of the false statements had nothing to do with any moral considerations, either with respect to the use of intoxicating liquors or with the alleged food deprivation of Americans in order that the English should have their accustomed drinks, but was simply an effort to drive an entering wedge between the United States and the Allies. Any lie that will find acceptance in any quarter will answer the purposes of the abject servants of the Germans, absolved in advance from all moral responsibility by their superiors.

Figures given in the previous article were sufficient to set at rest the qualms of any who might have been led astray, as they were based on an official statement issued especially by the United States Food Administration for the MANUFACTURERS RECORD, after the latter's correspondent had called attention to a number of articles that had been published on the subject.

The interest of the British Embassy officials at Washington in the obvious enemy propaganda to which the MANUFACTURERS RECORD called their attention, was keenly expressed at the time, as they had not been without cognizance of the falsehoods that were being industriously disseminated. As earlier stated, the British Pictorial Service, with headquarters in New York, which represents the British Government's publicity work, took immediate steps to thwart the efforts of the enemy by cabling to London for statistics for the MANUFACTURERS RECORD covering the use of materials for manufacturing intoxicants in the United Kingdom, both in the pre-war period and since the war, as well as for a general summary of the situation that would serve to present a clear picture of the general uses made of all foodstuffs at the present time.

These statistics, now at hand, have been kindly furnished to the MANUFACTURERS RECORD correspondent by H. A. Goode, Esq., head of the British Pictorial Service.

According to Mr. Goode, the total materials used in brewing in Great Britain during the year ending September 30, 1914, amounted to 1,556,000 tons. That used for the year ending September 30, 1917, amounted to 880,400 tons, or slightly more than half the earlier amount. The amount prescribed for use in brewing, following March 31, 1918, is to be at the rate of not to exceed 512,000 tons a year. These figures apply to materials used in brewing alone.

The total material used for distilling spirits in the year ending September 30, 1914, amounted to 535,000 tons. The spirits distilled from these materials, however, include those used for industrial purposes and for export.

Spirits for human consumption in the United Kingdom were approximately 56 per cent. of the total distilled, according to the official information obtained from London by Mr. Goode. The total materials, in tons, used for alcoholic beverages were, therefore:

	Beer.	Spirits.	Total.
Year ending September 30, 1914	1,556,000	300,000	1,856,000

In subsequent years the spirits produced in distilleries were very largely used for industrial and munition purposes. For obvious reasons the proportions so used cannot be stated.

Comparing the pre-war consumption of total materials used for alcoholic beverages with the present rate of consumption, the figures are given as follows:

	Tons.
Pre-war	1,856,000
Present rate.....	512,000

The rate of consumption has therefore been reduced by over 72 per cent., and is less than 28 per cent. of the pre-war consumption.

An important point made in this connection is that the figures given represent the gross quantities of materials used in breweries and distilleries. Approximately one-third of the materials are not of a kind which have been or could be used as human food, consisting mainly of the "offal" portion of the cereals.

By-products to the amount of one-third to one-fourth of the weight of the original materials are recovered in the form of brewers' and distillers' grains, malt combings and yeast. These are used mainly for cattle food and, in the case of yeast, in the preparation of human food.

It is further to be noted that the expression "intoxicants" is not very correctly applied to the beverages for which the materials are at present used. The alcoholic strength of the beer at present consumed has been very greatly reduced and is now to be further reduced. Under recent orders of the Food Controller the average alcoholic content of the beer consumed will be about 2 per cent., comparing with the 1 per cent. which is permitted to be used in non-intoxicating beverages.

The limited quantities of spirits now consumed in the United Kingdom are drawn from stocks manufactured in the pre-war period. During the past year no manufacture of spirits for human consumption has been permitted, and no further manufacture is at present contemplated.

This unqualified statement by Mr. Goode cuts to the quick in answering the charges and innuendoes of the German agents and their dupes. But to this he adds further statistics regarding brewed drinks:

"No unmalted barley," says Mr. Goode, "is now in the hands of brewers or malsters. The whole of the existing stocks of unmalted grain were requisitioned for breadstuffs on the 28th of February last."

"The quantity of saccharine substance at present in brewers' hands is about 10,000 tons, in the form of invert sugar and glucose. These substances are not suitable for general consumption, and it is not contemplated that any cane sugar will in future be used in brewing."

Some light is thrown upon the extent of conservation practiced in other ways, in the rations now compulsorily imposed in the United Kingdom, which are given as follows:

Meat, including chicken, all kinds of game, etc., not exceeding 1 1/4 pounds per week. There will be supplementary rations for those engaged in hard manual labor.

Butter and margarine, 1/4 pound of either, not both, per week.

Sugar, 1/2 pound per week.

There are many other restrictions, such as the restrictions of wheat in bread, of feeding cereals to livestock, in the uses of milk, etc. Mr. Goode also calls attention to the fact that the bread now used in England is not all wheat, but contains about 25 per cent. of other grains.

The American who "Hooverizes" in order that a part of the wheat supply of his country may go abroad need not fear that the grain will be put to a bad use. It goes to feed England and other Allied nations, which have been conserving everything except the flesh and blood of their peoples while fighting for world freedom, German-made propaganda to the contrary notwithstanding.

A Shipyard's Magazine to Promote Esprit de Corps.

"Fore an' Aft" is a little monthly magazine published by and for the employees of the Newburgh Shipyard, Inc., Newburgh, N. Y. The first number was issued in March, and the initial editorial gives the purpose of the publication to be the spreading of news of the plant's various activities and also to bring about cordial relationships and a closer understanding between the men in the yards and the men in the offices. Irving T. Bush is chairman and Thomas C. Desmond president of the company.

Extensive Road Construction Under Way in North Carolina

REBUILDING DAMAGED HIGHWAYS—COMPLETING SCENIC ROUTES IN MOUNTAIN SECTION—GREAT HOSPITAL UNDER CONSTRUCTION FOR GOVERNMENT USE.

By FRED A. OLDS, Raleigh, N. C.

In a journey, just ended, covering over a score of Western and Piedmont North Carolina counties, the writer finds much material development interesting to the great army of readers of the MANUFACTURERS RECORD.

In Swain county, west of Asheville and under the flank of the Great Smoky Mountains, the railway through the Cherokee Indian Reservation has been pushed far up the mountain side by the Champion Fiber Co., whose immense wood-pulp plant is at Canton, near Asheville. This new road strikes into one of the most important forests of spruce now remaining in this State, and the Government takes over the timber for aeroplane construction. This company is doing a great amount of work at Canton, and it has another railway from Canton to Sunburst, and 185 men from a regiment of United States Engineers are now extending this road three miles farther, in order to get more spruce and other timber. The presence of this detachment is due to the scarcity of labor suitable for railway construction. The wooden parts of aeroplanes are now being made at one plant in North Carolina. There are some other spruce forests, one on the flank of Mt. Mitchell, in Yancey county, which has just been inspected by the Government. This one was described last autumn by the writer while in that county.

Highway work of much importance was found. The road through the Hickory Nut Gap, in Henderson and Rutherford counties, will be completed July 1. This road was so nearly wiped out by the unprecedented flood of July 16, 1916, that 20 miles of it had to be rebuilt, of this 13 miles being in Rutherford and 7 in Henderson, the cost of the rebuilding being \$4000 a mile. Of this, the United States, through the North Carolina Highway Commission, contributed \$13,000; the State gives 11,000 days' work, at \$1.50 per day, or \$16,500; the county of Rutherford \$25,000 and Henderson county only \$300. The relocation of this important highway link, which puts in touch Charlotte and Asheville and Hendersonville via Rutherfordton, will place fully 95 per cent. of it above the chance of any flood damage, so much has it been raised above its former level. Thus it is far better than before the flood.

This road was first built by State convicts, and was fully opened in June, 1916. On the following Fourth of July 800 automobiles from all the States in the South were there at a celebration at Chimney Rock. Then came July 16 and the phenomenal rainfall of two feet in 24 hours, and the Rocky Broad River literally swept away the highway, houses and people. The rebuilding is being done by 65 convicts, under the direction of the State Highway Commission.

Another gang of convicts has been at work since soon after the same flood on another important highway across the Blue Ridge, through Swannanoa Gap, directly east of Asheville and on the line to Greensboro and Raleigh, known as the Central Highway. This link has been rebuilt, though not yet formally accepted by the Government, which aided it with money, and this convict force is now at work on a six-mile link of the same highway in Burke county, which that county had failed to build, this being the only missing link between Raleigh and the Tennessee line.

In Polk county the United States and the State Highway Commission have approved the plans for a highway from the South Carolina line between Spartanburg and Asheville, and work on this now begins, with free labor, the length being 11 miles, from a point near Tryon across Polk county to the Henderson county line near Saluda. The United States and Polk county each contributed \$14,000. Some years ago this road was built, but the same flood greatly damaged it, and it has been only partially repaired. Now it is to be made a fine highway.

It is the general hope in the mountain section of the State that the more than 2000 German sailors interned at the camp at Hot Springs, N. C., very near the Ten-

nessee line, will be put at work building highways, and this matter is now under consideration. They now do no regular work, and their labor would be of immense value in that mountain region.

Yet another mountain road, which will give entrance into one of the most beautiful sections of America, has also been provided for, having this week been approved by the United States Bureau of Roads. This link of seven miles is in McDowell county north of Marion, up the face of the Blue Ridge, from Linville Falls Station, on the Carolina, Clinchfield & Ohio Railway, to Linville Falls, 4000 feet above sea level. The present wretched road, which follows a stream and which has grades as high as 20 per cent., part of it actually in the stream, through which the writer has tramped several times, will be replaced by one with a 5 per cent. grade at most in all the seven miles between the two points. The United States allots \$15,000 for this work, and the McDowell county township it traverses puts up a like sum. County convicts are doing the work, and this link will at one end reach the fine road to Marion. The latter attractive mountain town is on the Central Highway. At the other end, Linville Falls, there will be a tie-in with the fine road through the mountains by way of Newland, Banner Elk and Blowing Rock, so this is an important and interesting development. It will open one of the most spectacular parts of this State or the entire South.

As soon as the convicts finish the highway through the Hickory Nut Gap they will go to the triple hydro-electric power dams in Burke county, near Bridgewater, this being one of the numerous power developments of the Southern Power Co., of which James B. Duke of New York and Durham, N. C., is the head. The project was fully described by the writer last summer. The great dams are of earth, and there are three construction camps. The Catawba and Linville rivers and a large creek which there unite give the power. The State has just sent to this point 50 of its 190 convicts building the second power dam on the Yadkin River for the great aluminum plant at Badin, which is now devoting itself entirely to war work by the Government and which was fully described by the writer last summer.

In Montgomery county is one of the three chief gold-mining regions in North Carolina, but there only one mine is now in operation, the "Rich Cog," in the Eldorado section, owned by R. P. Richardson of Reidsville, N. C., and a Mr. Coggins. This shaft is down about 300 feet. In Rutherford county placer mining goes on, though not on a large scale, and in Nash county, much farther eastward, the Portis mine is in operation.

In Montgomery county much white quartz is being quarried for use in chemical work, and most of it goes to Charlotte for war purposes. Montgomery has more of this quartz than any other county in the State.

The writer paid a special visit to the great hospital for tubercular patients which the United States is establishing at Azalea, seven miles from Asheville. The work is being done by the Gude Company of Atlanta, Ga., and it is on a vast scale. The location is on an eminence above the Swannanoa River. The height above sea level ranges from 2240 to 3480 feet, which is a little greater than that of Asheville. No finer situation is to be found in the country, and on the 280 acres 68 buildings, with 1000 beds, are the start for what will be a wonderful sanitarium. The United States provides this for the care and recovery of tubercular patients, not only from the army in Europe, but also in this country, and the construction is being done in the most approved way. The equipment will be of the highest class in the way of building, plumbing, baths, central heating plant, Asheville city water (from Mt. Mitchell, than which none is finer in America), a first-class fire department and every other convenience, including a theater, auditorium, recreation park, Y. M. C. A. music hall and a Red Cross building in the shape of a cross.

The number of men employed is now over 1000, and

these live in Asheville and are brought to the site by the people of the city in their automobiles, they making the nominal charge of 20 cents for the round trip. On the day the writer was there these automobiles brought in 912 men, who were checked off, loaded and shipped in 18 minutes on the return trip to the city, which is record time.

A most interesting feature of the work at this beehive of a place is a slope of 800 feet at an angle of 40 degrees, up which a cable pulls a four-horse wagon in two minutes with its load. Horses haul the wagons to the foot of the incline and in a jiffy the animals are unhitched and the cable hooks on and two hours' time is saved. The organization is wonderful. Thirty buildings were under construction that day, and the largest of all is the mess hall, which will seat 1500 persons.

The total cost of the plant will be \$1,500,000. An official in charge said this great sanitarium is the nation's recognition of its manifest duty to its soldiers. The work is being rushed, and as many as 2000 men will be employed in the next 10 days. The city of Asheville has co-operated most handsomely, and several ladies co-operate to bring the workmen out and take them back in their own automobiles every day. The contractor said no arrangement could be finer.

Expects Electrochemists' Southern Tour to Result in Important Developments.

C. W. HOWARD, Chattanooga Industrial Board, Chattanooga, Tenn.

As you know, we have just had the pleasure of entertaining that organization known as the "American Electrochemical Society." They are accustomed to doing things in a big way. It is therefore natural that in their trip to the Appalachian South that they should come in force. It is a wonderful body of men. I doubt if we have ever entertained a combination so thoroughly competent technically and commercially.

Naturally the question arises, aside from a pleasant and rather strenuous vacation for these gentlemen, what good will follow. As hosts we could not ask these gentlemen prior to their coming, but now that the visit is over, I think it an entirely proper one. Personally, I believe the visit will be as valuable to these gentlemen as it will be to the South. We have a few chemical plants scattered over a wide range of territory in the South, Southeast and Southwest. One plant or two dozen plants will come no nearer meeting requirements than does one swallow safely indicate spring.

Nature in the Appalachian South has produced water-power, minerals, timber, climatic conditions, but overlooked capital and technical knowledge to make these conditions valuable. I very firmly believe that this visit will be followed by others taken in a more leisurely manner by the different individuals composing this party and result eventually in the location of great plants for working into proper shape the material so abundant in this section.

I was asked several times during the visit of these gentlemen in Chattanooga if we were always so agreeable, an implied compliment that always brought a grin of satisfaction. Of course, we were wearing our "company manners," but it is a short call from a guest receiving attitude to the shoulder pressure of the comrade in arms or in business.

The business men of the South today are a happy blend of "Yankee Doodle" and "Dixie." There are five men composing the directory of this department. Three out of five were born north of the Ohio River. The fourth one is the son of a Northern man and a Southern woman. The fifth is the only one of Southern parentage. I was born north of the Ohio River, but of Southern parents, and have spent by far the greater portion of my life in the South. I am a Republican in politics: have always voted Republican ticket in national affairs except on one occasion. I have never by word or act had my motives questioned. It is true that as a rule I have been on the losing side, but the Democrats of Pennsylvania can properly appreciate this.

There are some things that we know how to do remarkably well. There are other things that need being done very greatly that we know nothing about, only that they should be done. The man or combination of men coming to us with the knowledge of these things will be welcome, and thereafter his affairs will be our affairs when he needs us.

Twenty knitting machines will be added by the Decatur (Ala.) Hosiery Mills.

Cottonseed, Peanuts and Soy Beans As Producers of Oils and Fats

[Special Correspondence Manufacturers Record.]

Washington, D. C., May 2.

Recent activities in the cottonseed-oil mills in the South are linked up with an agricultural program which promises developments at an unprecedented rate in the production of certain crops in the Southern States.

While the oil mills of the South were primarily constructed for crushing cottonseed, they have been extensively used within the last two years for obtaining oil from other products, such as peanuts, soy beans and copra. In practically all cases their use for these purposes has been possible with little or no modifications in the machinery or the methods of procedure. Cottonseed oil, of course, continues to constitute the bulk of the material turned out by the mills, the value of that product direct in 1917 having been estimated at \$215,000,000, without taking account of the various other products of the cottonseed after the oil is expressed.

Among the remarkable developments in this field has been the increased production of peanuts, which crop is practically confined to the South from the standpoint of commercial considerations.

No figures are available at the Government departments for the peanut crop prior to 1916 other than are contained in the census reports published at intervals of ten years. Between 1916 and 1917, however, the statistics show that both the acreage and the yield were enormously increased. The total production in 1916 was 35,324,500 bushels, while the production in 1917 reached a total of 51,096,000 bushels. The value of the 1917 crop is placed at \$20,000,000 for the 1,333,000 tons of hay produced and \$100,000,000 for the peanuts proper, or a total of \$120,000,000. The following table, obtained from the Bureau of Crop Estimates of the Department of Agriculture, shows how the acreage has been enlarged within the Southern States during the last year, as well as the quota which each contributes to the entire crop:

State	Acreage 1916.*	Acreage 1917.	Harvested for Grain.			Per Cent. Grazed or Hogged Off.†
			Per Cent.	Acreage.	Production, Bushels.	
Alabama	400,000	900,000	60	540,000	11,520,000	40
Arkansas	40,000	150,000	56	84,000	3,108,000	44
Florida	366,000	414,000	14	58,000	1,450,000	86
Georgia	285,000	745,000	31	255,000	9,435,000	66
Louisiana	33,000	35,000	..	..	..	mostly.
Mississippi	16,000	25,000	24	6,000	204,000	76
North Carolina	185,000	182,000	54	153,000	2,142,000	16
Oklahoma	11,000	20,000	75	13,000	416,000	24
South Carolina	24,000	26,000	61	16,000	720,000	39
Tennessee	16,000	15,000	50	15,000	450,000	1
Texas	275,000	600,000	58	588,000	15,876,000	1
Virginia	150,000	165,000	100	165,000	5,775,000	1
Totals of States reporting.....	1,801,000	3,277,000	58.3	1,893,000	51,096,000	41.7

* No data, or doubtful. † Including some acreage from which grain is previously gathered. ‡ Including 15 per cent. harvested and fed with the nuts.

As the table indicates, somewhat more than half the entire peanut crop is harvested for grain purposes. Of this amount, practically all goes to the crushers, except the portion of the crop raised in Virginia and North Carolina, which are the two States that supply the greater bulk of the edible commodities as disposed of at groceries, fruit stands, confectioneries, etc.

One of the incentives to larger production in the South has been the damage wrought by the boll-weevil in cotton. Where these have been worst a considerable acreage was turned over to the peanut industry, with successful results. This has been more particularly the case in parts of Texas, Alabama and Georgia, although the same conditions have been observed, only on a smaller scale, in Louisiana and Mississippi. This prompt turning to a large cultivation of the crop has been of much benefit to some of the 800 cottonseed-oil mills, as in a few districts they would have been compelled to go out of business through lack of cottonseed to crush, in spite of the fact that in their entirety they crush about 4,000,000 tons of cottonseed yearly, yielding a total of more than 3,000,000 barrels of cottonseed oil.

But apart from the enforced conditions mentioned, the project has proved a paying one, so much so, in fact, that it is estimated that the peanut crop for the coming harvest will be double that of last year, or yield a total of more than 100,000,000 bushels. Farmers who had 10 or 12 acres of peanuts in last year derived enough from their crop to buy a good automobile. One farmer in Georgia had in 10 acres, from which he sold a crop

that brought him \$1400. The price at the mills is about \$2.25 a bushel, in hulls.

The better grades of peanut oil are used as an acceptable substitute for olive oil and other salad oils. The coarser grades find large uses in oleomargarine and as lubricants. About two gallons of the oil enter into the manufacture of oleomargarine to every gallon used for other purposes.

Even more striking than with peanuts has been the development of the soy-bean industry, not only in the South, but elsewhere, within the last few years. The soy bean is now the second leading crop of Manchuria, and is one of the leading crops of Japan. Its production in China has been traced back by investigators to many centuries before the Christian era. Only recently, however, has it been cultivated at all widely in the United States, although comparatively large areas have been under cultivation in Eastern North Carolina for some years, with Elizabeth City, Washington and Wilmington, N. C., and Norfolk, Va., figuring as the chief commercial centers.

Prior to 1917 the total acreage was so insignificant as scarcely to warrant the gathering of statistics regarding soy beans in this country. Fairly accurate estimates for last year place the total acreage in North Carolina at about 125,000 acres, this representing by far the greater part of the total acreage, although the cultivation of the crop had already spread into many other States. The total yield for last year is placed at approximately 2,000,000 bushels. About one-fourth of the crop is raised for seed and the remainder for forage. An average yield of 20 bushels to the acre may be expected, although 20 to 30 bushels per acre have been raised in North Carolina after taking off a previous crop of oats raised 50,000 bushels last year. The price has shown steady advances in recent years, rising from each fall quotation to that of the ensuing spring. In the fall of

1915 the farm prices were 90 cents to \$1 a bushel, going to \$2 and \$2.50 in the spring of 1916. The 1916 crop started off at \$1.25 and went to \$5 by the spring of 1917. The 1917 crop experienced nearly the same progress in prices, ranging from \$3 in the fall to \$3 to \$5 this spring.

There is no question that a greatly increased crop of soy beans will be put in this year. The Government experts are at a loss where to put the limit. Perhaps three times the acreage of last year represents a conservative estimate. The Bureau of Plant Industry has word from a farmer in Alabama that he intends to plant 500 acres to soy beans, although he has never undertaken to raise the crop before. Similar large undertakings and extensions are promised elsewhere. In Yazoo county Mississippi, 10,000 acres were devoted to the crop in 1917, whereas not more than 100 acres had been so utilized in the county previously. This is a fair illustration of developments in some other portions of the country, and more particularly in the South.

The soy bean is particularly rich in oil and nutrient qualities as compared to the more familiar varieties of beans. It contains 18 per cent. of fat and 38 per cent. of protein, while the ordinary beans runs about 2 per cent. of fat and 22 per cent. protein. As with peanuts, the soy bean can be crushed in the cottonseed-oil mills without any trouble.

The great bulk of the soy bean oil formerly went into the manufacture of soap, and much is still absorbed in that industry. Last year more than 1,000,000 pounds of soy bean oil were imported for lard substitutes.

Very large amounts of the American product go into the manufacture of butter substitutes. It is also used as a table oil, in combination with linseed oil in paints, and in some types of artists' paints with scarcely any other oil combination. The soy bean itself, however, is destined to a much larger employment than heretofore as human food.

There is but little information obtainable from official Government sources regarding the amount of copra crushed in the cottonseed-oil mills in recent years, but it is known that it has had place in the industry to some extent for some time.

Figures collected by the Census Bureau for 1916 indicate that nine establishments in the United States produced 126,884,374 pounds of coconut oil in that year. Since then the transportation embargoes have interfered materially with importations. Most of the copra now coming into the country is received on the Pacific coast, and it is roughly estimated that 15 or 20 mills, principally in the Southwest, are crushing the dried product now being obtained.

On account of the shortage of fats and oils, the Government departments having to do with the situation are strongly advocating a greater production of vegetable oils. The cotton-oil mills have been helped by the propaganda, and so has the Southern farmer. In all likelihood the movement already developing at such an encouraging rate will continue after the war. B. E. Reuter, Chief of the Division of Fats and Oils of the Food Administration, is now engaged on a general survey of the fats situation, which will include a looking into the activities of all of the oil mills. Dr. George H. Denny of the Cottonseed Division of the Food Administration, will take up the matter incidentally in the trips to Southern cities, regarding which advance announcement has already been given in the MANUFACTURERS RECORD. The activities of his division, however, are more directly connected with the cottonseed industry as a whole, including meal, oils, hulls and linters, as regards price conditions from the producer through the various stages of manufacture and sale, on to the ultimate consumer.

In an appeal to the farmers of the South to plant more peanuts and soy beans, and to cottonseed-oil mills to lengthen their operating season by crushing peanuts and soy beans to meet the great demand for these products and help to increase the food supply of the country, the industrial and agricultural division of the Nashville, Chattanooga & St. Louis Railway, Nashville, Tenn., has compiled and published for distribution a comprehensive pamphlet on the manufacture of peanut and soy-bean oil. The pamphlet contains special reference to actual results achieved by producers and manufacturers in Alabama, Georgia, Texas and North Carolina.

Emphasis is laid on the fact that because of the world shortage of fats and oils, notwithstanding the heavy importations into the United States of oil and oil-bearing materials, this country must increase its production of vegetable oil-bearing products. This extremity offers an opportunity to both the producer and manufacturer in the South of peanuts and soy beans and their products, and, as stated in the pamphlet, "considered in its mercenary aspect the field is unlimited, and one that should induce men seeking legitimate and remunerative returns from investment to employ themselves in it."

America the Manufacturer of the World.

FRED W. BARNACLO, Oklahoma City, Okla.

Disturbed as life apparently may be because of the chaos flowing from war, we must not forget that such chaos is the fruitful ground of opportunity, reconstruction, reorganization and readjustment.

The cry for and false pride based upon foreign-made or the commonly known "imported goods" has at last been laid away upon the lines of history, and from henceforth America will be the manufacturer of the world. All the essentials that mark a world-wide enterprise are now awakened in the American life.

Importations in their final analysis largely have conveyed to the world all of the humbugs of commercialism and industrialism, while we have complimented the activity by indulgent fabulous rewards. All this is now but historic, and America the world's manufacturer will aid the world into readjustments of their normal life with legitimate product at a figure commensurate with unlimited skill.

Let every manufacturer, great or small, as he may be, adopt the slogan, "America, the manufacturer of the world!"

A Clear View of the Great Issues of the Hour

American Shipbuilding Company,
Executive Offices, 11 Broadway,
New York.

Brunswick, Ga., April 17, 1918.

Editor *Manufacturers Record*:

I hope you will pardon me if I should unduly take a moment of your valuable time in giving expression of my hope and best wishes for your continued success in treating so ably the many topics of both local and national interest, that require individual and universal attention at the present time.

Your paper is doing great work for this country, and it is to be regretted that every home is not blessed with such a source of information, and if every local press could put out such a paper once a week, it would help to arouse many whose attention has not yet been focused on the duties of every individual of America in this hour of peril, which is to help to win this war.

I am glad that we have such a paper as yours, which does not hesitate to say or give whatever information is best for the country, and to encourage and quicken the dormant and indifferent to a sense of their duty before the cannon becomes audible from the American home.

It is gratifying to note that many of the local papers are reprinting some of the articles from the *MANUFACTURERS RECORD*, which is helpful to those who are not fortunate enough to get your paper direct. I take pleasure in passing on these numbers, after I have finished with them, to others here at the plant so that those who drive the rivet may spur themselves on with greater effort to accomplish more in a day in order to get the first ship in the water on record time.

There cannot be concerted action until every man in the shipyard, every man in the shop, every man in the field and every other industry realizes his full duty and falls into the one magnificent swing, when petty, personal differences will be laid aside until after the war.

It is almost provoking to anger to see able-bodied men lolling around with seemingly no object in view, when this hour of peril demands their entire efforts in some line of endeavor, yet it seems that some will not be aroused even though one rose from the dead to bring to them the awful realities that are confronting us in Europe.

I try not to become pessimistic, but when I study the situation and think over the conditions in the far East and the efforts Germany is making in that direction, it appears serious indeed, and I believe it is going to take man power, money power and all spiritual power that man can invoke to conquer the demon that is before us. I verily believe men are going to have to learn how to pray again, and women are going to gather about the family altar for an invocation of God's aid in behalf of their sons' struggle with the monster on the battle field.

We have been living in a fool's paradise and have forgotten our duty to God and man, and we may have to learn these things all over again before victory comes in our favor, but I believe victory will finally come to the side for right and justice.

It is a fine thing to know that we are fighting a war in defense of humanity, and for the continued freedom of America, and the right for American subjects to move about in the world unharmed by the demon that is now claiming the divine right to rule the world, and put it back into a state of organized slavery, and not only that, but to fight until Belgium and Serbia and Roumania have had their house put back in order, so far as it is possible to do so, and France has had her Alsace-Lorraine restored to her, and until every military advantage has been wrested from the Turk, and every weapon of war has been taken from her, so that she may never again have the power to drive even one Armenian from his home to be starved to death, as she has done with one million in this war. Nothing should inspire the American soldier to a greater determination to do his heroic part in this war, and make the world a tolerable place for humanity, than the knowledge of these things, and to fully realize that unless the Hun is checked, beaten, and annihilated on

the field in Europe, these terrible crimes will be multiplied many fold when he reaches American soil.

Every person in this country should be glad to share the expense, the burdens, the sacrifices in this fight for freedom, and he that is not willing does not deserve the protection of the United States Government.

I am in hearty accord with your idea as to the punishment of the German spies in this country, and I do not believe that they deserve any more sympathy than the German that constitutes a part of the wave that is trying to break through the British and French lines.

I think every true American should consider himself an agent to hunt out and report to the proper authorities every suspicious person and let them be kept under strict surveillance.

I believe as you that the United States should start now to create one of the greatest fighting machines the world has ever known, not as a challenge to any other nation, but as a protection for the things that America stands for, and to keep down threatening dangers, and every man physically fit should be training as fast as this can be provided for, and when America gets fully organized on a war basis and can strike in concerted action, we will then have begun to fight.

J. O. SPINKS.

BAITING OF BIG BUSINESS NOT POPULAR NOW.

End of Remarkable State-Racking Warfare Against Oil Corporations in Texas.

Austin, Tex., May 10—[Special.]—Formal announcement is made by the Pierce Oil Corporation that it has just taken over all the holdings of the Pierce-Fordyce Oil Association and that the latter concern has gone out of business. Involved in the transaction are two larger refineries, one situated at Texas City and the other at Fort Worth, a system of pipe lines, many storage tanks and much producing territory in Texas. The Pierce Oil Corporation was organized under the laws of Virginia, with a capital stock of \$33,000,000, as the successor of the Waters-Pierce Oil Co. The Pierce-Fordyce Oil Association was a joint stock concern which was organized for the purpose of carrying on the business formerly conducted by the Waters-Pierce Oil Co. in Texas when that corporation was exiled from this State by judgment of the courts for violating the anti-trust laws. The Legislature at its recent session passed a law permitting the successor of the Waters-Pierce Oil Co. to re-enter Texas.

In connection with the announcement of the passing of the properties of the Pierce-Fordyce Oil Association into the hands of the Pierce Oil Corporation, it is authoritatively stated that the latter will immediately enlarge its refining facilities and greatly increase its oil development operations in Texas.

The return of the Pierce Oil Corporation to do business in Texas marks the end of a remarkable political fight that raged around the Waters-Pierce Oil Co. and its principal stockholder, H. Clay Pierce of St. Louis and New York, for many years. This corporation was the principal issue in Democratic politics in several campaigns for Governor and United States Senator. It was during the time that a great hue and cry was being raised against trusts and monopolies all over the country that suit was filed against the Waters-Pierce Oil Co. in Texas for alleged violations of the anti-trust laws. It was ousted from the State as a result of those proceedings, but was later allowed to resume business here upon the filing of an affidavit by Mr. Pierce that the corporation was not a trust or connected with a trust. This affidavit was placed on record in the Secretary of State's office.

It was largely through the personal intercession of Senator Joseph W. Bailey that the Waters-Pierce Oil Co. was given a clean bill of health at that time, it is claimed. It was not long thereafter that the second phase of the remarkable fight developed. New evidence came to light that showed that the Waters-Pierce Oil Co. was not the independent concern that Mr. Pierce had alleged it to be. The Attorney-General's department brought suit to again oust the company from the State and for enormous penalties for alleged violations of the anti-trust law. Mr. Pierce was indicted by the

grand jury of this county for alleged false swearing, in that his affidavit that the company was not a trust or connected with a trust was not true.

In the trial of the case against the Waters-Pierce Oil Co. much evidence that was at the time regarded as sensational was brought to light. Senator Bailey's connection with the corporation or with Mr. Pierce in a legal way caused him to be investigated by the Legislature. He was acquitted of any wrongdoing, but this verdict did not satisfy the political element which was opposing him with all its vigor. Governors and other State officials were made and unmade on the Waters-Pierce Oil Co. issue. Senator Bailey ultimately resigned his seat and retired from politics. Mr. Pierce was tried in the district court here for false swearing and acquitted. The State obtained judgment against the Waters-Pierce Oil Co. for \$1,600,000 penalties for violating the anti-trust law, and an injunction was issued perpetually restraining it from doing business in Texas. The big judgment was paid into the State treasury in cash amid the plaudits of the anti-Bailey faction of the Democratic party.

There was nothing in the laws to prevent the holdings of the outlawed company from being taken over and operated by a joint stock concern composed of the same owners. This was done under the name of the Pierce-Fordyce Oil Association. The only change that was made was the painting out of the oil signs and the putting on of new ones upon the filling stations, oil depots and wagons.

Along about that time the State Attorney-General's department opened a fight upon certain subsidiaries of the Standard Oil Co., which were alleged to be doing business in Texas, in violation of the anti-trust laws. These cases were also won by the State and judgments for ouster from the State and penalties were obtained. The Magnolia Petroleum Co. came into being as a joint stock concern and took over the properties of the Standard Oil subsidiaries which had been barred from doing business in Texas. It was openly known to the State authorities that the Magnolia Petroleum Co. and the Standard Oil Co. were one and the same, so far as ownership was concerned, but the former was sanctioned by law and the latter was not.

In the meanwhile the oil industry of Texas continued to expand. It was realized by the people of the State, including all but perhaps a small coterie of old-time politicians, that enormous aggregations of capital were required to develop and handle this vast source of natural wealth. Gradually, one by one, the Standard Oil subsidiaries came back to Texas. In fact, it is doubtful if any of them ever quit doing business here. But there are more of them in the State now than formerly. Public opinion, as it relates to alleged trusts and combinations, has undergone a wonderful change in Texas during the last few years. The vast benefit which these large investment oil interests have been to the State in a material and other ways is now realized and appreciated by nearly every citizen. What lingering prejudice may have existed against them has been wiped out by the great war. The work which they are performing in providing the United States and its allies with fuel for the gigantic war operations at home and abroad makes them an outstanding and welcome feature of the State's industrial activity.

The politician who would be daring enough to make an attack upon the big oil interests of Texas upon the stump or in the courts at this time would probably subject himself to the charge of being a traitor to his country.

New Orleans to Have Municipal Vegetable Dehydrator.

New Orleans, La., May 4—[Special.]—New Orleans will be the first city in the United States to put in a municipal vegetable dryer (dehydrator). The architect is now adapting the Government plans to the needs of this community and construction will begin as soon as possible. The plant will cost about \$500, will be erected in the municipal kitchen and will be ready before June.

It will save \$250,000 in perishable vegetables this year alone, according to estimates. These are raised in the large market gardens in the city limits, and in the 50,000 war gardens of the city. When there is a glut of any crop the surplus will be dehydrated and packed in sealed packages for winter consumption, instead of being plowed under, as were eight tons of spinach and mustard greens here recently.

When the dryer is ready a schedule of hours will be arranged and housewives will be given its use in rotation, under the supervision of experts.

R. E. Olds' Great Land-Clearing Machines

BEING PERFECTED UNDER ACTUAL WORKING CONDITIONS ON THE 37,500-
ACRE TRACT OF THE REOLDS FARMS COMPANY AT OLDSMAR, FLA.

Scarcity of food and labor shortage have created a condition in which it is necessary to develop and apply mechanical devices on a large scale to produce the necessary foodstuffs to supply the world's need. R. E. Olds, the well-known automobile manufacturer, has been working along these lines on his big tract of 37,500 acres at Oldsmar, Fla., on old Tampa Bay, fifteen miles west of Tampa. To stimulate farming in Florida the Reolds Farms Co. conducts a demonstration farm where all that a farmer wants to know may be learned first hand, and the company furnishes the land and the capital and, when a man comes along with ability and willingness, he is signed up and given a chance to finish buying a farm by his own energies.

In addition to taking advantage of the known practical machinery for farming on a large scale, Mr. Olds is devoting much of his time to developing new and larger machines to do the work with greater speed and efficiency. To this end he has become interested in the Kardell Tractor & Truck Co. of St. Louis, which is building a large plant at Oldsmar, to which place the St. Louis business is being transferred. The location at Oldsmar of this big factory, and others which will follow it, gives Mr. Olds better opportunity to develop his new machines, try them out and perfect them under ideal conditions where work can be done outdoors twelve months in the year in a climate where three or four crops can be raised annually on the same field. Mr. Olds says it costs about \$50,000 a year merely to heat his Reo Motor Car factory at Lansing, Mich., and nearly all of this money could be saved if the plant had been located at Oldsmar. The iron and coal mines in Alabama and Tennessee enable the Kardell Tractor Co. to get these supplies by shorter haul than was the case when it was operating in St. Louis.

Mr. Olds in a statement for the MANUFACTURERS RECORD says:

"I am bending my efforts toward perfecting a heavy machine and equipment for clearing land quickly on an extensive scale. In a general way, the machine will be somewhat like a gigantic tank, making a sweep about 100 feet wide, taking out the big stumps as though they were bushes, and piling them up in great windrows to be burned; the ashes being left to furnish potash for the land and help to put it in good shape.

"Following this will be a new machine recently invented and perfected to pick up about 12 inches of top soil, elevate it, screen it free from small roots, sift the earth, and drop it back in proper shape ready for planting a crop. Following this separating machine will be a trailer into which all the small roots will be dropped, to be dumped at the end of the field, leaving the land in perfect condition for truck farming which is so profitable in Florida. After this machine is perfected in actual use, a company will be organized to produce this heavy equipment at Oldsmar in such quantities as the demand will require.

"We have reason to believe this new invention will greatly reduce the cost of clearing land, and enable us to make great progress in speeding up the crops. I feel that a man who uses his energies to develop the resources of his country, and contributes his due proportion thereof to the Government, is helping to make the world safe for Democracy, and should be encouraged in his work just as much as the soldier, physician, Red Cross nurse, or Y. M. C. A. worker representing us 'somewhere in France.'

"I am doing all in my power to get our 37,500 acres of land around Oldsmar under cultivation as soon as possible in order to do my bit. On my 600-acre farm in Michigan, I am now raising all the grain and cattle I possibly can. I can see no reason why Florida should fail to be the garden spot of the future. It has the climate to produce three or more crops a year on plenty of good land, and Florida should be able to yield food enough to supply many of the Northern States, as well as some of the foreign countries, and thus help win the war. I have spent seven winters in California, and have been coming to Florida for the last eighteen years.

"I have been wonderfully surprised and pleased by our agricultural results already attained at Oldsmar. We have found that one crop practically pays for the

price we have asked for the land and the clearing of it on our own demonstration farm. The Reolds Farms Co. at Oldsmar is doing much to assist and guide the men who are buying land, aiding them to get started right in the new circumstances to which they are not accustomed.

"I believe the greatest work a man can do today is to plan into the future and help the world produce all the food we can. The fruits of the land must be produced with machinery, and on a large scale, in order to keep the world alive. The real way to reduce the high cost of living is to produce crops in great quantities in a land of sunshine and length of season, where one can raise several crops a year on the same field, to say nothing of the advantages to the laboring man by living in beautiful sunshine as against the snow and ice of the North. I have been surprised to see the number of farmers who have discovered the many advantages of Florida. The steady influx from other States proves that Florida's wonderful climate is being appreciated more than ever before."

Notes of Progress in North Carolina.

Raleigh, N. C., May 9—[Special.]—From what the writer can gather, the fruit crop in the western and central sections of this State will be a good one. The trees were overloaded with blooms, and there is plenty of fruit now on. In the east truck crops and strawberries were hit hard, not only by the heavy frosts, but by several days of almost torrential rain, and in some sections the damage amounted to 50 per cent.

The curtailment of the strawberry crop in South-eastern North Carolina has brought about extremely high prices, ranging from \$7 for the finest quality to \$4 for the poorest grade. The growers have given freely to Red Cross work, and were large buyers of Liberty bonds.

There is a very heavy business in blackberries in this State, the wild berry being gathered in the Piedmont section, dried or canned, and sold by the carload, while in the sand-hill zone the writer passed through miles of cultivated berries, which are in great request, and which are shipped in crates to the Northern markets. In the same sand-hill zone are the largest peach orchards in the State, near Southern Pines and Candor, and this fruit is well known in the great markets. Near Aberdeen an immense increase in the acreage of scuppernon grapes was observed, and the juice of these goes to Urbana, O.

Last year North Carolina made, thanks to its women's and girls' canning clubs, the wonderful record of packing over 9,000,000 cans of vegetables and fruits. The clubs are setting out to double this output this season, and there is a tremendous increase in interest and equipment. A wholesale dealer at Mt. Airy makes it a plan to furnish cans to clubs to be filled and sold either to him or to any other dealer without restriction, payment for the cans being made in canned goods or through their sale, the cans being furnished practically at cost. This one wholesaler sold in the South last season over 10,000 cases of tomatoes, beans, apples and blackberries.

Governor and Mrs. Thomas W. Bickett have enrolled themselves as eaters of wheat substitutes entirely until the next harvest. They have the honor of heading the list of "no wheat" patriots, and Mrs. K. B. Patterson of Hickory follows them. She writes the Commissioner of Public Welfare at Raleigh that for the past month she has used no wheat, and will use none until the new crop comes in. North Carolina fought between '61 and '65 on cornbread, in the field and at home, too.

The wheat crop in North Carolina is found to be much the largest on record, and generally extremely promising. Wheat is now grown in every county in the State, and in some of those in the east which have not been planted before since about 1870. The excellence of the farming this season is extremely noticeable in most counties, and the writer has never seen it so good in this State.

In the course of travel in the past two months, in every part of North Carolina, the writer has gathered the pleasing information that the sales of farm ma-

chinery far exceed those made any previous season. In every county visited new machinery was observed coming in, and it is safe to say there are five times as many kerosene tractor plows as there were last year.

Experts B. W. Gaither and W. R. Bailey, emergency agents of the Agricultural Extension Service in North Carolina, tell me that their careful estimate is that the increase in acreage in soy beans in this State will be at the very least 20 per cent. over that of last year and 1916. They find that the increase of the acreage in peanuts and velvet beans will also be great. All of this is in spite of the scarcity of labor.

The largest negro insurance company in the world is at Durham. It is the North Carolina Mutual and Provident Association, and it has bought Liberty bonds of the last issue to the amount of \$100,000. Its general manager, C. C. Spaulding, has received a telegram of appreciation from Secretary McAdoo.

The commissioners of Wake county have sold, at a premium, the \$40,000 of highway bonds for asphaltting the five-mile stretch of the Central Highway between Raleigh and Garner. The United States and the county join in the building of this important link, which at Raleigh will join the other asphalt stretch on the same highway to Cary, nearly nine miles away and toward Durham. It is the purpose to thus pave the highway all the way between Raleigh and Durham.

State convicts are to be sent to Wilmington to build a highway to connect the shipyard which is now in preparation with the main southern road out of Wilmington, known as the Fort Fisher road, because its southern end is at Fort Fisher, the greatest of the Confederate forts and the last important one to fall.

While at Asheville this month the writer visited the Kenilworth Inn, just completed, at a cost of \$600,000, and now occupied by 200 officers and men, who are quartered in it and its beautiful cottages until it is put into use as a hospital by the United States War Department. It will provide for 800 officers and men. It is one of the finest hotels in the South, and is owned by Asheville and South Carolina men. The first Kenilworth Inn was of wood, on the same site, on the brow of a hill several hundred feet above Biltmore village. It was built by a United States Senator from Pennsylvania and was burned about 12 years ago. The great hospital at Azulea, which is for tubercular patients exclusively, is almost in sight of this one.

FRED A. OLDS.

More Than Billion Feet of Lumber for Immediate Government Requirements.

"Every mill in the South will be called on this summer to furnish a very large percent. of their production in every grade to fill the Government's requirements," according to H. L. DeMuth, manager of the Washington office of the Southern Pine Emergency Bureau.

We are going to be called upon to handle more lumber for the Government this summer than ever before, and following are three of the big items that will make up the demand:

It has been definitely decided that there will be 200 additional wooden ships built on the Gulf and South Atlantic Coast, some to be of the Daugherty type of 4700 tons tonnage and each boat will take approximately 1,465,000 feet of lumber and timber. This will mean approximately 293,000,000 feet of ship timbers. Next the question of Government railroad cars is coming to a point and we have definite advice that the first increment of cars built will be comprised of 25,000 double sheath box cars, 25,000 high side gondolas, and 20,000 single sheath box cars. All of the cars will be of steel under-frame and wood uppers. We have been advised by the Central Purchasing Commission that they will need 400,000,000 feet of car material for their full program. It has been definitely decided that the National Army will be increased from 1,600,000 men to 3,000,000 men. The original plan was to build new cantonments at new points to take care of this increase, but it is now decided that cantonments now built will simply be enlarged, but this will, of course, call for just as much lumber as new cantonments and will mean at least 400,000,000 feet of lumber for cantonment construction.

In addition to these three big projects requiring more than 1,000,000,000 feet of lumber, numberless warehouses hospitals, ordnance depots, dock extension work and industrial housing jobs all over the country will be built, and orders for material for these purposes are coming through every day.

Increase in Production of Potash.

The output of all potash materials produced and marketed in the United States in 1917, as reported by the manufacturers to the United States Geological Survey was 126,577 short tons, which contained 32,366 short tons, or an average of 26.4 per cent. of pure potash (K_2O). This is more than three times the quantity produced in 1916 and corresponds very closely with the output predicted for 1917 by H. S. Gale of the Survey from a review of the mid-year statistics. The approximate average selling price of these potash materials at the points of shipment was \$4.26 a unit—that is \$4.26 a ton for every 1 per cent. of pure potash (K_2O) in the material marketed. This price corresponds to \$426 a ton of pure potash. The total value of the potash produced in the United States in 1917 was \$13,791,922.

In the following preliminary summary by Mr. Gale the production in 1917 is classified with as much detail as is consistent with the Survey's obligation to hold individual reports of production confidential.

POTASH PRODUCED IN THE UNITED STATES IN 1917.

Sources.	Number of producers.	Total production of potash (K ₂ O).	Value at point of shipment.
Mineral sources:			
Natural brines.....	10	79,876	20,652
Alunite (refined salts and crude and roasted alunite).....	3	7,153	2,402
Dust from cement mills..	8	13,582	1,621
Dust from blast furnaces..	3	2,133	185
Organic sources:			
Kelp.....	10	11,306	3,572
Molasses residue from distilleries.....	4	8,589	2,846
Wood ashes.....	36	700	424
Evaporated Steffens water from sugar refineries....	5	2,593	359
Evaporated wool washings and miscellaneous industrial wastes.....	3	645	306
Totals.....	82	126,577	32,366

*Includes 1,333 tons of material produced but not sold in 1917.

The output of one of the four plants producing potash from brines in western Nebraska considerably exceeded that from any other one source or district, and the combined output of these plants represents about 45 per cent. of the total for the entire country. Searles Lake, Cal., was the other source of large production from brines.

The potash produced from kelp represents about 10 per cent. of the total. A large part of this was high-grade potassium chloride produced by two companies and the rest was divided among eight other producers, who manufactured kelp char or ash carrying 16 to 36 per cent. of potash, used as an ingredient of fertilizer. An unexpected shortage of the kelp crop curtailed the production from this source in 1917.

The production from alunite was not so great as had been expected, though two additional producers from this source entered the field during the year. The plant of the original producer was destroyed by fire in October, and, though the work of reconstructing it has been pushed rapidly, it had not been put into operation by the end of the year. In addition to the high-grade potassium sulphate produced from alunite a considerable quantity of calcined alunite carrying 16 per cent. of available potash was marketed for incorporation into fertilizers, and raw alunite was shipped to Eastern reduction works to be treated for the recovery of potash.

A fairly high grade potash produced from the residue of charred molasses at alcohol distilleries, representing nearly 9 per cent. of the total output, was, like kelp char, used in fertilizer mixtures.

The quantity of potash recovered from the waste liquors produced by the Steffens process of beet-sugar manufacture was somewhat augmented in 1917, and many experiments designed to increase the output from this source are being made at beet-sugar factories throughout the country.

Eight cement mills reported production of potash salts or of potash-rich dusts sold as fertilizer during the year, the quantity marketed from this source reaching a total of 13,582 short tons, representing 1,621 tons of actual potash (K_2O). The recovery of potash from cement dusts, which is being rapidly extended, seems to offer large promise for a greater domestic potash industry, and it is expected that the production from this source may take second place in the summary by sources for 1918.

The dust collected from blast furnaces is a significant though still a minor item in the total for 1917. The production of potash from this source may eventually be large, but in view of the stress under which the

steel plants are now operating this process may receive but little attention during the war.

Crude potash is still produced by the old methods of leaching from wood ashes in the hardwood lumber districts, chiefly in Wisconsin and Michigan. Complete statistics of this output are difficult to obtain. Many of the producers keep no exact records of their operations and do not always know the quality of their product, so that exact interpretation of the figures they furnish is impossible. Reports from 36 producers in 1917 show a gross output marketed of 700 short tons, having a value of \$406,856. This is assumed to be about 424 short tons of K_2O .

Refined potash salts were produced from wool washings in 1917 by at least two plants, and some potash was produced from the ash or char obtained by burning other waste organic matter at several industrial establishments.

Potash was produced in 1917 by 82 firms, including 36 wood-ash leachers, most of them operating small works. The total production is about 13 per cent. of the normal consumption of potash in the country during the years immediately preceding the war. There is now no crisis as regards the potash supply of the country, though the prices paid for what is obtained are about ten times the normal prices before the war.

All firms have been seriously handicapped by shortage of labor and fuel, difficulties of transportation and inability to get needed equipment. Potash-producing plants have been generally included among the industries that are necessary to win the war, and there is a widespread sentiment in favor of assisting, so far as possible, the operations of these plants by giving special consideration to their actual needs. It is exceedingly unlikely, however, that Government operation or any direct Government financial aid to new enterprises for producing potash will now be considered necessary in view of the successful results obtained from the many privately conducted projects.

Large Deposits of Cement Rock Reported from Mississippi.

Jackson, Miss., May 9.—[Special.]—Bulletins issued by Dr. E. N. Lowe, director of the department of geology of this State, show that some of the most valuable deposits of cement rock in the country exist in Mississippi. None of these deposits have been developed, and the field is wide open to any that wish to invest money in the manufacture of cement.

The reports of the geological survey disclose the fact that the deposits of cement rock run clear across the State from Vicksburg to the Alabama line on the east and extends as far south as West Feliciana parish, Louisiana. Tests have demonstrated that some of these deposits will run as high as 90 per cent. pure cement.

It has been known for years that deposits of cement rock existed in the State, but it was not until the State geological department made the survey and tests that the extent and value were known.

The question of an adequate supply of fuel for burning the cement rock is the only problem to be solved in order to develop the cement manufacturing industry on a large scale. There are no coal mines or natural gas fields in Mississippi, and coal will have to be brought from Alabama or gas piped from the Louisiana gas fields. If it were not for the war situation and the scarcity of pipe, an ample supply of gas could be obtained from the Louisiana fields.

Cement rock is easily accessible for manufacturing purposes at several points in the State. There is an outcropping of the rock in the bluffs in the city of Vicksburg and another in bluffs along Pearl River, south of Jackson, while at several points in the State railroad cuts have revealed large quantities of the rock. In Rankin county the Alabama & Vicksburg Railroad has built a spur track out to a quarry, where the rock is

being taken out for building purposes and for use as ballast along railroads.

Along the Mobile & Ohio Railroad, in the eastern section of the State, there are several exposures of Selma chalk that have been tested, showing that a good grade of cement can be produced therefrom. The accompanying photograph shows one of the Selma chalk deposits on the Houston branch of the Mobile & Ohio Railroad, one and one-half miles west of Okolona, Miss. These deposits are near the Alabama coal fields, and a supply of fuel can be obtained from that source.

Lumbermen to Be Informed as to the Economics of Their Business.

In a letter addressed to the directors of the National Lumber Manufacturers' Association and to the presidents and secretaries of associations affiliated with the National, R. B. Goodman, acting president, has charged that an effort is being made at Washington to attach the stigma of profiteering to the lumber industry, and follows the charge up by the statement: "For this condition of affairs we lumbermen ourselves are to blame. Individually, we do not understand the economics of our own business."

Mr. Goodman's letter is in effect a call for an economic conference of lumber manufacturers from all sections of the country, to be held in Chicago on May 22, immediately after the adjournment of the sixteenth annual convention of the National Lumber Manufacturers' Association on the two previous days, May 20 and 21.

The letter points out that although the attempt to stigmatize the industry as a war profiteer is being made in a lesser degree against the lumber industry than against any of the other great national industries, still it is being done to an extent which every patriotic lumberman resents. There is also being made at Washington an attempt to befog and to confuse in the public mind the efforts of the lumber industry to obtain fair economic consideration with a selfish desire to seek profit from the present situation, Mr. Goodman says. He continues:

"The industry has given liberally of its men, liberally in its subscriptions to war charities and liberally in its subscriptions to Liberty bonds as have all American industries. It has given efficient service, and is giving still more efficient service in supplying this Government and the Allies with lumber."

The cost accounting systems of the lumber industry are, almost without exception, incomplete, the acting president of the National Association says. He adds: "I have examined many of those accounts, and until



EXPOSURE OF SELMA CHALK IN CUT ON HOUSTON BRANCH OF MOBILE & OHIO RAILROAD, 1½ MILES WEST OF OKOLONA, MISS.

very recently" they were invariably devised with great cleverness to flatter the management with an apparent cheapness of production rather than a true reflection of actual conditions."

Speaking of the popular misconception that lumber, except for its war uses, is a superfluity, Mr. Goodman predicts that "if the pinch comes strong" there will not be one sliver or splinter of the tree from refuse fuel to the rarest hardwood that will not be needed either as raw material or as finished product in the development of our transportation facilities, our food production, industrial housing and the manufacture of munitions.

UNITED STATES STEEL CORPORATION TO MAKE CANNON.

Costly New Plant to Be Established in the Interior of the Country.

One of the most important of recent industrial announcements is that the United States Steel Corporation will make cannon for the Government, and especially significant is the fact that the plant to be established for this manufacture of heavy ordnance is to be located in the interior of the country, where it will be as safe as possible from enemy attacks in the event of war being brought to the doors of America, with the possibility of invasion.

In the announcement of this departure from the Steel Corporation's business policy it is revealed that patriotic considerations influenced its decision, for Judge Gary has said that the work will be undertaken at the solicitation of the Secretary of War, and that the plant will be built and equipped for the Government and at its expense. It will be devoted to making cannon and projectiles of large sizes and in great quantities. It will be operated by the Corporation.

It is further stated in the announcement that considerable time will be required to build the plant and make it ready for operation, and its cost will be large, but the construction will proceed with all practicable speed and the money will be used economically. It will be under the immediate charge of a committee consisting of a vice-president and the controller of the Corporation and other members selected from the officers of the various manufacturing and subsidiary companies, all of whom will be chosen because of their education, experience and peculiar fitness for the work.

General plans are being prepared rapidly and will soon be ready for submission to the Federal authorities.

It is reported that the plant may be established at either Pittsburgh, Pa.; Cleveland, O., or Gary, Ind.

Texas Experiments With Flour Substitutes.

Austin, Tex., May 10.—[Special.]—In order to learn what substitutes were available in Texas for wheat flour, for use during the 45-day wheatless period that is now in effect in that State, representatives of the Federal Food Administration have just made an investigation of the different products. It is found that the rice mills are now prepared to offer rice flour in liberal quantities and are grinding this rice from the full grain or commercial rice on account of the broken or brewers' rice being entirely off the market. This cheap, broken rice could be used for making rice flour and would represent a much cheaper market if it could be secured, but this will not be offered until the new crop, the last of August or September 1.

The price of corn flour has been considerably advanced on account of the same situation found to exist with cornmeal. Numbers of cars reaching the Texas markets have been damaged and could not be used for corn flour or meal, while the better grades have brought a premium.

Regarding the higher price for potato flour, the stocks now in Texas are brought from New York and the enormous shrinkage in the potato when used for flour causes the exceptionally high price, and the by-products cannot be used to advantage.

Quotations on flour show the retail price from 7 to 7½ cents in broken quantities. The substitutes are bought in small quantities, and the retail price on corn flour should not be much higher than the average price on wheat flour. The difficulty is that the average consumer is comparing the present price of substitutes with the old price on wheat flour, and they overlook the fact that wheat flour, as well, has been selling at a high price for the last four or five months.

"It is not surprising," states the report, "that substitutes should be sold at a higher price when first placed upon the market. The manufacture of them is on a more expensive basis, as the mills are not accustomed to handling them, and the manufacturing cost should be materially reduced as the season progresses. The trade will also purchase in larger quantities and thereby save unreasonable local rates, but the distributors in their desire to care for the demand have accepted up to the present time any quantity they could secure."

Quotations offered to the retail trade on rice flour, potato flour, barley flour, corn flour and rye flour are as follows:

Rice flour from 7½ to 10 cents per pound, the cheap

price of 7½ representing an old contract—10 cents representing today's market. Potato flour, 15½ cents. Barley flour, 7½ cents. Corn flour, .050 cents. Rye flour, 6½ to 7 cents.

The price to the consumer is based upon a reasonable and not an extraordinary profit.

Cotton Spinning Industry of Japan.

[Consul E. H. Dooman, Kobe, March 25.]

The extraordinarily favorable business conditions in Japan, due principally to the continued withdrawal of European nations from the competition for the markets of Asia and Australia, and the increasing popularity in China of Japanese products made the year 1917 an extremely profitable one for the spinning industry and have firmly fixed it as the leading manufacturing industry of Japan.

On June 30, 1917, the total authorized capital of 30 companies engaged in this industry amounted to \$76,135,687, an increase of \$7,696,840 over the preceding year; their paid-up capital amounted to \$53,904,860, an increase of \$4,250,649, and their reserve funds to \$28,394,192, an increase of \$3,936,122. The net earnings for the first six months of the 32 companies whose earnings were published totaled \$15,681,406, and their declared dividends averaged 33.4 per cent. on their combined paid-up capital. Detailed figures follow:

Companies.	Number of mills.	Capital.	
		Authorized.	Paid up.
Settsu	11	\$3,489,500	\$2,426,500
Osaka Godo	10	3,388,300	3,388,300
Temma	3	2,482,500	1,370,875
Fukushima	10	1,994,000	1,314,046
Osaka Knitting	1	598,200	373,875
Nagai	2	2,492,500	1,869,375
Otsu	1	199,400	199,400
Matsuoka	2	49,850	49,850
Osaka Weaving	1	1,495,500	697,900
Naniwa	2	373,875	373,875
Idzum	1	747,750	747,750
Kishiwada	1	1,196,400	1,196,400
Terada	1	249,250	62,313
Wakayama	7	1,296,100	810,063
Klyo	2	747,750	458,032
Nakai	1	498,500	311,563
Hinode	1	1,495,500	747,750
Tsuji	31	149,550	149,550
Amagasaki	21	6,231,250	4,984,000
Nihon	2	498,500	249,250
Kurashiki	5	1,495,500	1,121,630
Sanyo	1	498,500	498,500
Handa	1	348,950	348,950
Katsuka	1	49,850	49,850
Sanuki	1	224,325	224,325
Mishima	1	249,250	199,400
Ehime	2	373,875	249,250
Meiji	3	436,188	305,331
Nagasaki	1	997,000	623,125
Owake	1	1,495,500	934,688
Toyo	26	12,462,500	8,702,315
Yokkaichi	1	49,850	49,850
Shimada	1	38,364	38,364
Sagami	1	1,495,500	373,875
Kanagafuchi	26	8,687,300	7,460,865
Yokohama	6	8,573,000	6,490,500
Nishin	1	4,985,000	1,994,000
Tokyo Calico	2	2,492,500	1,370,875
Matsuyama	2	498,500	498,500

The difficulty in obtaining spindles from Great Britain still stands as an obstacle to the development of the industry. The first shipment of spinning machinery from the United States arrived during the latter part of 1917 and was set up by an engineer and mechanics dispatched to this country by the manufacturers. It is gratifying to learn that the machinery is giving excellent service.

During the first half of the calendar year 1917, 966,896 bales (one bale equals 400 pounds) of yarn were produced, this being about 16,000 bales less than the production during the corresponding period of 1916. Of this amount, 261,500 bales were exported abroad, as follows:

Exported to—	Pounds.	Value.
China	77,676,098	\$19,544,188
Hongkong	15,543,380	3,812,293
Chosen	5,801,438	1,225,989
Philippines	833,760	276,316
Kwantung	3,137,633	865,317
India	1,074,720	459,983
Russia	255,340	46,996
Other countries	282,106	65,333
Total	104,604,475	\$26,296,415

Chosen (Korea) was the only country to increase its exports of raw cotton to Japan in 1917, having sent 21,848 bales more than in 1916. As the increase since 1915 is equal to about 250 per cent., the following information may be of interest to the American cotton trade:

American cottonseed were first introduced into Chosen in 1907 by the Japanese consul at Mokpo. His experiment was on the point of being successful, but before the plants had reached their full growth they were killed by the frost, which comes in Chosen about a month earlier than in the United States. Profiting by this experience, the consul looked for an early maturing plant growing under climatic conditions approximating

those of Chosen, and the following year he sowed "Kings Improved" seeds. Every care was taken to limit the length of the stems to three feet and the number of pods per plant to three. The results exceeded every expectation. The cotton resembled the American cotton very closely, and the yield was much greater than that of the old Korean variety. The percentage of water is about the same as in American and Indian cotton. Its one point of superiority over American cotton is the low proportion of foreign matter, due to the extreme care with which the pods are tended and picked, which the smallness of the plantations and the cheapness of human labor make possible. The price of "continental" cotton, which name has been given this new variety, is about 5 per cent. lower than the average quotations for American "middling" on the Osaka cotton exchange, but the quality is said to be equal to that of "good middling."

One peculiarity of "continental" cotton is its tendency to run down, caused, in all probability, by unfavorable climatic conditions and the impoverished state of the soil. The second year's growth shows a marked deterioration, and by the fourth year the cotton differs very little from the old Korean cotton. Spinners in this country find a lack of uniformity in the length of the fiber, and this irregularity and the large proportion of cotton stained by the tannic acid of the plant form the more serious defects.

Reserve.	Number of spindles.	Net earnings, Jan.-June, 1917.		Dividends, per cent.
		Jan.-June, 1917.	per cent.	
\$4,187,400	207,756	\$1,048,652	60	..
2,243,250	277,976	3,435,782	40	..
498,500	10,048	100,562	14	..
1,116,640	145,900	336,923	48	..
39,900	10,048	49,573	16	..
1,293,857	33,440	351,432	25	..
.....	30,496	.....	.....	..
.....	16,348	.....	.....	..
268,143	25,536	114,018	30	..
24,925	10,112	42,473	15	..
21,934	20,160	121,655	25	..
915,246	343,500	463,596	55	..
22,433	10,680	37,000	40	..
352,988	58,984	162,369	32	..
168,009	12,032	67,651	28	..
14,457	5,920	33,311	16	..
36,540	20,000	57,945	14	..
.....	20,868	.....	.....	..
2,351,733	343,896	2,173,108	60	..
12,961	7,016	22,328	12	..
548,550	88,884	214,586	34	..
52,343	20,144	56,433	15	..
.....	8,193	112,496	8.5	..
.....	1,920	.....	.....	..
86,639	18,728	44,711	34	..
4,945	11,463	15,836	12	..
104,486	15,743	33,069	30	..
64,805	21,460	53,808	22	..
27,969	23,300	41,793	12	..
28,415	32,940	99,897	14	..
5,889,884	483,364	2,251,812	36	..
.....	2,373	.....	.....	..
.....	1,704	.....	.....	..
1,722	3,200	13,430	5	..
5,177,105	456,212	2,251,894	40	..
2,627,242	341,664	1,487,841	28	..
14,475	82,060	261,076	22	..
86,169	28,464	124,169	14	..
.....	32,064	.....	.....	..

Industrial Development Planned by Baton Rouge.

Baton Rouge, La., May 9.—[Special.]—Baton Rouge is planning big things in the way of industrial development and is already making rapid strides along that line. Through the work of John B. Rucker, manager of the traffic bureau of the Chamber of Commerce, a strip of territory along the Mississippi River, in North Baton Rouge, has been dedicated as an industrial and factory district. One enterprise, that of the Wilhelm Lumber Co., has already located in the district and is building a sawmill, a planer and a veneering plant at a cost of \$250,000. Negotiations are now pending between the Chamber of Commerce and several other industrial enterprises with the view of locating in the district.

The industrial district will furnish factories with both rail and water facilities. The Mississippi River is in front of the district and the Yazoo & Mississippi Valley, the Louisiana Railway & Navigation and the Gulf Coast division of the Frisco Railroad will furnish rail facilities.

The plan is to build a model industrial city along with the factories. Bungalows and cottages, surrounded by small farms, will be built for the use of the employees of the mills and factories. The reason for placing every bungalow and cottage on a small farm is to enable the mill and factory workers to cultivate gardens, raise food supplies at home and reduce the cost of living to a minimum. The farms will be sold to the workers on long terms of payment, so that every family will have a home.

The new factory district adjoins the big plant of the Standard Oil Co.

RIVER TRANSPORTATION COMES TO THE AID OF THE CONGESTED RAILROADS.



Because of rail transportation difficulties caused by the war, water transportation is coming into its own, and the Ohio River has become a vital carrying line to the South. The above photo shows a large shipment of automobiles going from Cincinnati to Memphis, Tenn., via the Ohio River, on barges. This possibility of water transportation is referred to in Cincinnati as "an argument for Ohio River improvement."

Coal and Coke Statistics for Week Ending May 4.

Bituminous output, reports the Geological Survey, declined slightly during the week ended May 4, after three successive weeks of rising production. The total production of soft coal (including lignite and coal made into coke) is estimated on the basis of railway shipments at 11,559,000 net tons, as compared with 11,803,000 net tons during the preceding week, or a decrease of 2 per cent. Production per working day is estimated at 1,927,000 net tons, considerably in excess of 1,829,000 net tons, the average during May, 1917.

Production of beehive coke is estimated at 657,000 net tons, an average of 110,000 net tons per working day, as compared with 123,000 tons during the preceding week. The decrease in production during the past week amounted to 11 per cent.

Anthracite shipments during the week ended May 4 rose to 40,570 cars, the largest since the week of March 30.

For the country as a whole, the ratio of production to maximum capacity during the week ended April 27 was 74.7 per cent., the highest point attained this year.

Losses attributed to transportation conditions declined from 16.2 per cent. of potential capacity during the preceding week to 14.4 per cent.; losses due to labor conditions from 4.8 per cent. to 4.4 per cent.; those due to mine disability from 3.3 per cent. to 2.8 per cent., and no market losses from 1.8 per cent. to 1.2 per cent.

A general improvement in working conditions was reported in all fields with exception of Indiana, Western Pennsylvania and Kentucky. Material increases were recorded in the Northern and Central Ohio fields, production rising from 62.5 per cent. the week of April 20 to 75.2 per cent. Other fields reporting material improvement were the Irwin gas and Somerset county fields of Pennsylvania, the high volatile fields of West Virginia, the Southern Appalachian fields and the Southwestern Virginia fields. The improvement in all fields was effected by the reduction in losses due to car shortage.

Production of operators in the Hazard, Ky., field declined from 87.7 per cent. the week of April 20 to 77.6 per cent., shortage of cars causing the loss.

Shortage of yard labor limited production of beehive coke in the Connellsville and adjacent regions during week ended May 4, causing a loss of potential capacity of 18.2 per cent. as compared with losses due to shortage of yard labor during the week ended April 27 of 11.5 per cent. Sixty-three of the principal operators in the Connellsville, Greensburg and Latrobe districts of Pennsylvania produced 324,100 net tons of coke, or 70.4 per

cent. of their maximum capacity. Losses due to transportation conditions declined from 8.6 per cent. the week of April 27 to 6.3 per cent. Mine disability was given as causing a loss of 3.6 per cent.

The same operators produced 150,550 net tons of coal.

The high standard of performance reported from by-product operators in last week's bulletin was equaled and even exceeded during the week ended May 4. The ratio of production to maximum capacity rose from 89.1 per cent. the preceding week to 89.6 per cent.

Out of the 10.4 per cent. of maximum capacity which the operators of the country failed to realize in actual production, 3.7 per cent. was lost through lack of coal, 0.6 per cent. on account of labor trouble, 4.5 per cent. through repairs to plant, 0.3 per cent. because of "no market" and 1.3 per cent. for all other causes.

Operating conditions in the various States varied but little from the performance of the week before. Indiana reported the only material increase, the ratio of production to maximum capacity rising from 79.2 per cent. the week of April 27 to 85.6 per cent. Increased supply of by-product coal was the direct cause of the improvement. Kentucky was the only State to record a material decrease, the producing ratio declining from 90.3 per cent. the preceding week to 85.8 per cent. Repairs to plant was the cause given as limiting production.

It will be noted that Pennsylvania, the largest producing State, is reporting the least favorable conditions and is now operating at 82 per cent. of capacity.

Big Louisiana Plantation Sold for Subdivision as Truck Farms.

New Orleans, La., May 10—[Special.]—The last big plantation in the environs of New Orleans has just entered into the realm of memory with the purchase of the Ames plantation, 8500 acres fronting for 6500 feet along the Jefferson parish side of the river above Harvey's canal, by a local syndicate for subdivision into truck farms.

The price paid was \$400,000. The new company will establish a canning plant, co-operative produce market and dehydrating plant. Officers of the company are: Charles D. O'Connor, president of the American Laundry Co., president; A. Krauss of Krauss Brothers Lumber Co., vice-president; Peter Jung, Sr., president of the Crescent Bed Co., treasurer; Meyer Eiseman, real estate, secretary. Other directors are Peter Jung, Jr., Max N. Kohler, Lee Krauss, Eldon S. Lazarus and Alfred D. Danziger.

The property is crossed by the Southern Pacific and Texas & Pacific railroads, the Barataria shell road and a national highway. Sale of the property in small tracts will begin immediately.

\$25,000,000 Terminal and Warehouse to Be Built by Government at Charleston.

Charleston, S. C., May 11—[Special.]—The Mason & Hanger Company of Richmond, Ky., the contractor who came to Charleston to build the Government remount station for 20,000 horses and mules at North Charleston, has also been awarded the contract for terminal and warehouse construction for the Government at North Charleston to cost \$25,000,000 or more. Although Mason & Hanger have just got their engineers upon the ground, they already have a large force of laborers at work on the remount station, and expect eventually to employ 10,000 or more.

The remount station for the care and embarkation of army horses and mules will be completed in about 30 days, according to the contractors, who have the reputation for being capable of some of the fastest work in the United States. It will be built for 10,000 animals, according to the present plans, with the expectation of enlarging the capacity to 20,000 almost immediately. There will be more than 100 buildings for the horses and mules, including various warehouses, a horse hospital and other necessary buildings, and there will also be barracks for the large number of men that will have to be employed at the remount station to care for the animals. A million feet of lumber is already on hand, and it understood that about 5,000,000 feet or more will be needed for the remount station. Material is arriving rapidly, and no trouble is expected, either from lack of material or lack of labor.

The terminal and warehouse development, which will form the greater part of the company's work, will include a system of steel and concrete piers and warehouses and large ammunition depots. This development, together with the deepening of the channel to 40 feet at low water from the Charleston Navy-yard to the sea and the building of a \$4,000,000 drydock at the navy-yard will tremendously enhance Charleston's position among South Atlantic seaports.

Coal Saving by Industries of New Orleans.

New Orleans, La., May 10—[Special.]—More than 50,000 tons of coal are being saved a year by industrial concerns of New Orleans, it is estimated by the Fuel Administration, as a result of such economies as fixing leaky valves, insulating heating surfaces from which much energy is lost by evaporation and scientific methods of firing.

Seventy-six per cent. of the industrial plants of New Orleans have joined the movement. The normal consumption of coal by the industries here is estimated at 500,000 tons, and with plant coal selling at \$4.50 to \$4.75 a ton, the saving represents more than \$225,000.

New Orleans is one of the first cities to develop a practical campaign for saving coal, and the plans have been adopted by the National Fuel Administration.

Tapioca Flour as Substitute for Wheat Flour.

Austin, Tex., May 10—[Special.]—It is not improbable that tapioca flour may come into extensive use in Texas as a substitute for wheat flour. Steps to this end have been taken by the Wholesale Grocers' Association of the State. The principal source of tapioca flour is Java, and large shipments of the product have been contracted for by California jobbers for delivery in this country during the next two months. It is stated that the use of tapioca flour as a mixture with cornmeal in making bread gives fine results.

Navigating the Upper Trinity River.

Dallas, Tex., May 11—[Special.]—As a result of the recent rise in the Trinity River, the freight steamer Lattimore has been transporting cottonwood logs from a point 18 miles south of here to Dallas. These logs are delivered to the Hofman Box & Basket Co., and are used for making baskets. Each cargo consists of 18 tons of logs. The Hofman Box & Basket Co. has made arrangements for the transporting of a supply of material for their plant here by means of this river boat for some time to come. It is the first time for many years that commercial transportation use has been made of the Trinity River.

Shell borings and turnings in marketable quantities are beginning to appear as factors in scrap steel quotations; 6000 tons were recently sold at \$24 per ton. Sales of bars rolled from discarded shell steel are also noted.

News and Views from Our Readers

More Things in Heaven and Earth, Etc.

CHAS. E. CHIDSEY, Pascagoula, Miss.

I have just been reading with more than usual interest on page 69 of this issue of the MANUFACTURERS RECORD the letter and suggestion of Mr. William T. Wells. There is a great deal more in what Mr. Wells says than the ignorant and those with only a superficial knowledge of "nature's infinite book of secrecy" will be willing to admit. Mr. Wells' suggestion is based upon historic fact and sound scientific principles.

That the Huns are in mass using psychical force or "wishing" victory to themselves and defeat to the Allies is to me self-evident. In 1835 Arthur Schopenhauer, a truly great German philosopher, published a little book called "Ueber das Will in der Natur," or "Concerning the Will in Nature," in which he demonstrated the power of mind, or psychical force, over matter and physical force. In 1914, at the very beginning of this war, a German war correspondent stated that every Boche in going to battle carried a copy of Shakespeare and Schopenhauer in his knapsack. This statement was no doubt greatly exaggerated, but it is sufficient to show the extent that Schopenhauer has been studied and read in Germany.

We need not, however, go to Germany to find confirmation of Mr. Wells' theory, as we find it in an Englishman and a higher authority than Schopenhauer—Francis Lord Bacon. In 1627, one year after Lord Bacon's death, was published his *Sylva Sylvarum*, or *Natural History*, which was written during the last years of his life, and in section 907 he relates a remarkable instance of the power of mind over matter, an experiment performed upon his own person. Lord Bacon, with the common sense so characteristic of the man, does not undertake to explain what to him was inexplicable, but frankly admits that he could not understand it, and suggests that experiments be conducted in order to ascertain the secret of the mystery. Now, Lord Bacon's voluminous prose works, letters, speeches, tracts, histories, etc., and his "translation of the Psalms into English verse," which he was pleased to call "poesy," give us indubitable evidence that Lord Bacon had no such thing as poetic imagination. He was not a poet, and therefore had no poetic fancies, but, on the contrary, the poetic aspect of things and nature did not appeal to him, but were only subjects for the most rigid analysis and investigation. For this reason one cannot say that Lord Bacon allowed his imagination to run away with him.

One could fill a page or more of the MANUFACTURERS RECORD in support of Mr. Wells and his suggestion, but one incident must do. Some 10 years or more ago a gentleman of this city had a little girl of 10 years, who was very ill, and attending physician had stated that she "would die that night." A neighbor, Mr. A., when his wife informed him through her tears that the child was dying, said: "No. She must not die. She will get well." That night A. slept not, but spent the night in willing, or, if you prefer, "wishing," the child back to health. At 2 A. M. the crisis passed. Did or not the psychical force of A. act upon the psychical force of the little girl, strengthening it, and by this means strengthening her physical force, that enabled her to resist the disease? Who knows? Be that as it may, that little girl will within a few days graduate from a prominent educational institution in literature and music with the prospects of a long and brilliant career before her.

Let us adopt the suggestion of Mr. Wells; let the 5,000,000 readers of the Saturday Evening Post and the readers of the MANUFACTURERS RECORD unite with other millions of Americans in night and morning "wishing," or rather willing, victory for the Allies and defeat for the Huns. This psychic force in mass, acting upon the minds of the troops of the Allies, will strengthen the psychic force of the men in the trenches, and with it their physical force, and act as a force to combat the psychic force of the Huns.

Of course, the world will laugh, and "great editors" will smile derisively, but then Richelieu sent a monk to the insane asylum at Bicetre in France because he proposed to use steam as a motive power for propelling boats, and I myself can remember when the newspapers made fun of Jules Verne because in his "Mysterious Island" he had men talking over an electrically charged wire seven miles long and sent men 10,000 leagues under the sea in a submarine boat. Fortunately for Tesla

and Marconi, they live in the twentieth century, or they would have long since been burned at the stake. Be this as it may, however, "The truth can bide its time, as it has a long life before it."

Texas Plan Encourages Extensive Planting of War Gardens.

W. A. CLAMPITT, Secretary Kleberg County Council of Defense, Kingsville, Tex.

We are enclosing herewith copy of forms which we have had printed for the encouraging of the more extensive planting of war gardens in this county.

The County Council of Defense, along with the Food Administrator and a number of patriotic citizens, have taken up a suggestion made by one of our citizens that we get every person in town, whether boarding or otherwise, to work war gardens at least three hours of the week. We have taken up vacant lots over the town and have elected 10 or 12 captains, with the necessary lieutenants and sergeants in each, to look after the cultivation of these plots of ground. The city agreed to furnish free water for these war gardens, and the Commercial Club furnished the seed, necessary tools and plowing, and by charging out the cost against each garden when the returns are made, the Commercial Club will be refunded for the amount expended. The net proceeds will be given to the Red Cross.

In connection with this, the high-school girls and women of the city agreed to can anything that the men would grow in these gardens. We did not plant only such vegetables as could be canned, but those that could be dried as well and also cane and kaffir corn, the two latter being planted only on raw land that was in bad shape.

The printed form herewith we are using for fall

Name
Frontage Feet
Furnish me the following plants:
.....Cabbage
.....Tomato
.....Onion
My 1918 fall garden will be: feet
OK
..... Owner or Tenant

gardens. This drive is being made to ascertain the number of members we can count upon to plant war gardens in the fall. This is in addition to the municipal war gardens that we now have growing. Our plan is to know who will plant gardens and the number of cabbage, tomato and onion plants that they will need so that we may have a competent gardener to grow these plants and have them ready to set out when the time comes. We have made arrangement with this gardener to furnish the seed and grow these plants for us on the basis of 10 cents per hundred.

We called a meeting of the business men of the town to meet and perfect this organization, electing a chairman and secretary to have the work in their charge. The necessary committees were appointed, each man agreeing to accept the position of a committee to canvass the town, devoting an hour a day for four consecutive days to do this work. Each man was to ask someone to help him and covered six blocks, presenting the enclosed form to each resident, ascertaining the number of plants he will use and secure his signature, which we considered an obligation on his part having the plants delivered at a certain time, and thus we would know what we are doing, and, too, be able to have the necessary plants on hand to supply their needs. We took a city map and detailed the blocks to each one on the committee and carried along with it such plot of what to plant and the space and number of the plants used on each space.

Our people have entered into this proposition with enthusiasm, and we believe that our war gardens for this coming fall will be quite a success. We think the idea could be passed along to other communities and they could do as well or better and something can be done and something grown to help win this terrible war.

Inefficiency in United States Department of Agriculture.

STANLEY F. MORSE, New Orleans, La.

It is to be hoped that your editorial regarding the inefficiency of the Department of Agriculture will help "start something." While the department has accomplished a great deal of good in its ponderous way, nevertheless, it does not measure up to the standard of efficiency that war needs demand.

What is the trouble? Too much attention to forms and rules. Too many offices run by clerks instead of by executives. Too many superannuated pensioners, inexperienced embryo agriculturists, and impractical theorists who can't hold a job anywhere else. It is a well-known fact that the salaries paid are so small and the chances of promotion, except by death, are so slim that few efficient, practical men remain in the Department of Agriculture. The result is that most of the ambitious energetic men with initiative and ability move on out of the department into commercial work. A well-known official of this department once said to me: "A man who wishes to work in the Department of Agriculture should either have a private fortune or be so interested in the work that a small salary will not worry him."

It should be thoroughly understood that there are some high-class men in the Department of Agriculture—men whose work has been worth millions of dollars to the farmers of the United States. But they are sadly handicapped, either by bureaucratic superiors, by red tape or by lack of funds. It is not generally known that department officials sometimes have to get the aid of certain Congressmen to get things done, and an annual unpleasant duty is having to appear before a Congressional committee to secure certain necessary appropriations. The entire department is honeycombed with politics and pigheadedness, which slows up the machine and wastes money. For instance, the annual \$250,000 Congressional patronage of "free seeds" is a pernicious extravagance which should be stopped.

What should be done to speed up the department? The department heads should be selected for their ability as business executives, while the theorists should be given work that they can do, the political standers-in should be fired and the "old fuddies" pensioned. Higher salaries should be paid and promotions should be based on efficiency. All unnecessary clerks should be dispensed with and the whole machine reorganized from top to bottom. Congress should give the Secretary power to do this so that scared or fired employees will not run crying to their Congressmen to save their jobs. And then Congress should adopt the blanket budget system with the department, so that officials will not have to spend much of their time trying to get appropriations to carry on their projects. Also the reorganization should carry a plan for thoroughly organizing the farmers of the South. So long as a job in the Department of Agriculture, or any other department, is a meal ticket instead of a duty, there will be inefficiency.

Increased Food Production Essential to Avert a Famine.

JONCE L. GARDNER, Randolph, Ala.

I read your article copied by the Birmingham News on "The Deficiency of Germinating Seed Corn in the North and West."

Allow me to congratulate you on your timely article on so important a matter that affects the life of our nation and civilization.

I would that all of our patriotic people would put into execution the suggestions contained in your article, but from my observation of the actions of men, too few read and analyze such subjects. Mostly they pass such timely advice unheeded, and nothing but compulsion will cause some people to sometimes do the work that affects their own welfare.

I beg to call your attention to an article that I prepared on the subject of increased food production, which appeared in the Birmingham News just one day prior to the appearance of your article referred to above.

Cannot some concert of action on the part of such good writers as yourself and other good editors who mold the thought of the public and sometimes influence

our representatives in Congress bring this important matter to the attention of those in authority with a view to having some definite method of increasing the production of the items of food that our own people and the world are so much in need of?

High wages has caused a very great shortage of farm labor throughout our country, and I have observed that when a farm laborer left the farm to go to the industrial fields for higher wages he never returns to the farm to work. This condition has been going on for the past 35 years or more, and if it continued a few years longer our nation would face a famine even if we were not at war.

The great thoughtful people of our country must solve the problem in a way that will produce the desired result.

Numerous Drainage Undertakings in South-eastern States.

WILL D. ALEXANDER, Civil, Hydraulic and Mechanical Engineer, Charlotte, N. C.

In addition to the proposed drainage canals for the Jackson county drainage district No. 2 at Jefferson, Ga., we are engineers on 15 drainage projects that are in different stages of completion in North Carolina and Georgia, and have a number that are either completed or partially completed. During the year 1917 the land-owners raised in the Piedmont section of North Carolina and Georgia 750,000 bushels of corn on these bottom lands that had been reclaimed by drainage. We are expecting to raise in 1918, 1,000,000 bushels of corn on reclaimed lands.

This reclamation of overflowed lands has been in actual operation for only about five years in this section. For the last two years it has become so very popular that it is impossible for the contractors to keep dredges on all the streams that are to be reclaimed.

Arkansas Opportunity for Fruit Box Factory and Hotel.

BEN C. EASTIN, Secretary Mena Commercial Club, Mena, Ark.

We are offering a free site and some stock subscription to a competent man with capital sufficient to carry 51 per cent. in a fruit box and basket factory.

We have unlimited supply of raw material, and being situated in the heart of the fastest growing fruit section of the State, with a splendid patronage assured, we have every reason to believe the investment will prove a money-maker.

We are also offering a free city block of ground for the erection of an adequate hotel to care for the constant flow of summer and winter tourists; beautiful scenery, bathing, fishing, pure waters and mountains supplying great quantity of wild fruit.

Notable Industrial Progress in the Southwest.

Missouri, Kansas & Texas Railway,
Office of Industrial Department.

St. Louis, Mo., May 10.

Editor *Manufacturers Record*:

The enclosed article by "Holland," the well-known New York correspondent, on the "Industrial Progress of the Southwest," no doubt will be of interest to you as well as to many of your readers.

Any use that you can make of this article, either in whole or part, will be very much appreciated.

R. W. HOCKADAY,

Industrial Commissioner.

The letter to which Mr. Hockaday refers is as follows: "Not long ago, when E. H. Harriman was putting the finishing touches upon the expansion of the Union Pacific Railroad system and at the time when he brought the Southern Pacific into intimate association with the Union Pacific, he spoke with enthusiasm of the future of that section of the country, which he called the 'Empire-like Southwest.' Earlier, C. P. Huntington, who caused the Southern Pacific to bisect or flank that empire, spoke in what seemed to be unmeasured terms of the future relation of the Southwest to the prosperity of the nation. But the European war and our participation in it have brought home vividly, especially to the people in the East, what the relation of the Southwest soon is to be and is certain to become after the war is over to American prosperity.

"For instance, when Mr. Harriman spoke and Mr. Huntington predicted there were no cotton mills in Texas. Today, 16 cotton industries of this kind are in operation in Texas, and 13 of them are on the line of

the Missouri, Kansas & Texas Railroad. Undoubtedly, when new investment is obtained the number of cotton mills in Texas will be greatly increased.

"While Texas is taking a prominent position as a cotton manufacturing State, Oklahoma is also coming into prominent notice as an important cotton raiser. Both States want textile plants and knitting mills. Industries of this kind are sure to be established in the Southwest. R. W. Hockaday, industrial commissioner of the Missouri, Kansas & Texas Railroad at St. Louis, has for some months been making a thorough investigation of industrial and agricultural opportunities in the Southwest. His investigations justify him in saying he has found that in the Southwest there is an almost inexhaustible supply of cheap fuel, as well as vast quantities of raw materials of various kinds which can be conveniently and economically utilized in industry.

"The Federal War Board has been discouraging the establishment of new industrial enterprises in the territory north of the Ohio and east of the Mississippi rivers. That action was due to reports of labor shortage, lack of fuel and on account of the railroad congestion in the East. For this reason industrial opportunities are sought in the Southwest and capital is beginning to flow to that region, much of it obtained in the East, whereby great industrial plants may be established in a short time in the Southwest.

"Senator Owen of Oklahoma of late has had opportunities to prove the accuracy of Mr. Hariman's prediction. He has gone on record as saying there are wonderful opportunities for the hustlers of the Southwest to establish plants for the manufacture of war material.

"Some of the wonders in natural resources, wonderful at least in amount and quality, are an unlimited supply of natural gas, rich deposits of oil, an enormous supply of coal, iron and manganese, which is essential in the manufacture of steel, as well as timber, asphalt, and an ideal climate.

"Senator Owen speaks with gratification of the fact that manufacturers of broad vision and of great enterprise in St. Louis already have established plants and are manufacturing war materials which they are furnishing to the Government, especially caisson wagons and shells.

"The development of the Southwest which now is in progress will result in providing our exporters with the peculiar kind of products which will be in demand for export after the war. All are confident that we must now, although in the midst of war, be careful to make preparation for the day when peace comes. To do this it is necessary to have the facilities to meet the tremendous demand which will come from other countries for American products. One thing that is regarded with favor is the fact that when the war is ended, if shipbuilding is speeded up to the contemplated maximum, the United States will have the greatest mercantile marine in the world."

Plantation Refineries Greatly Increase in Louisiana.

New Orleans, La., May 10—[Special.]—Seventeen old raw sugar-houses in this State have joined the plantation granulated list to date. This means that the output of this grade of sugar in Louisiana in 1918 will be increased 100,000,000 pounds, at least. Besides equipping themselves with granulators, they are also being thoroughly overhauled and cooling and screening and dust-collecting devices which prevent the always dangerous and often disastrous explosions in industrial establishments, are being installed. These new apparatus additions to the ordinary plantation granulated machinery will eliminate the man handling of the sugar made, so that the sugar will never come in contact with human hands or with shovels from the vacuum pan to the package. The installations now being done are of the most thorough character. Additions to factories are being erected so as to not impair the granulating efficiency by lack of room.

The labor shortage presents about the only marring item on the 1918 sheet. Everywhere labor is hard to get. What it will be when the harvest comes only one who knows the number of extra field hands needed then can understand. The Colonial Sugars Co., operator of a sugar factory and a very large sugar refinery at Gramercy, La., is hiring women now to take the place of their drafted men employees. White girls are being used for clerical work, while colored women are loading sugar and doing other like labor in various departments of the Gramercy plant. Thus far the results obtained

with the female labor have been very satisfactory. All of the units of the industry are raising wages, the Gramercy refinery having ordered a 25 per cent. wage increase for all of its employees a few days ago.

The Hard Times factory in Assumption parish, which did not operate in 1917, will operate this coming season. It has been reorganized as the L. Cancienne, Inc., with an initial capital of \$75,000, which can be increased to \$300,000. The factory will be renovated entirely.

Another new factory is projected for Iberia parish, which will make syrup for refining at the Franklin refinery at Franklin, La., which already handles the juice from about five other small Louisiana houses.

The Shilstone Process Co. is busy making rice-char for refining. Dr. Herbert M. Shilstone of this company has just returned from New York, and says that a number of factories will use his product this year.

Five or six days of excellent weather have served to permit the planters to get into the fields and remove the accumulations of grass which have thrived there during the last two or three weeks of rainy weather. The crop under the timely influence of warm temperatures has responded wonderfully and is characterized as the greatest crop ever promised in the State. Ten or twelve more days of field work will put everything in perfect shape.

The production of cane sugar in Louisiana for the season beginning in the fall of 1917 was 487,200,000 pounds, as compared with 607,800,000 pounds in 1916 and 275,000,000 in 1915, according to the Bureau of Crop Estimates, United States Department of Agriculture. The cane crushed for sugar amounted to 3,813,000 tons in 1917, or an average of 128 pounds of sugar per ton of cane. The average yield of cane per acre in 1917 was 15.6 tons, and the estimated area harvested for sugar-making was 244,000 acres.

\$3,000,000 Mississippi Bonds Sold.

A special dispatch from Jackson, Miss., to the *MANUFACTURERS RECORD* says that the State of Mississippi has sold \$3,000,000 of funding and refunding bonds at 5½ per cent. and premium of \$12,900 to a syndicate represented by Wm. R. Compton & Co. of St. Louis and the Hibernia Bank & Trust Co. of New Orleans.

The sale was made by the State Board of Finance, which is composed of Governor Theo. G. Bilbo and other officers. It was attended by bond purchasers representing financial houses in New York, Chicago, St. Louis, Memphis and other cities.

These securities are serial optional bonds dated April 1, 1918, and the act authorizing the issue permitted their sale at 6 per cent. if need be.

The Cotton Movement.

In his report of May 10 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 283 days of the season was 10,852,101 bales, a decrease under the same period last year of 1,073,561 bales. The exports were 3,572,178 bales, a decrease of 1,270,433 bales. The takings were, by Northern spinners, 2,332,003 bales, a decrease of 197,550 bales; by Southern spinners, 3,629,886 bales, a decrease of 79,337 bales.

To Manufacture Metallic Lifeboats.

Production of metallic lifeboats will soon begin at the plant of the Mobile (Ala.) Steel Co., manufacturer of sheet-metal products. These boats will be an added department to the company's present plant, where the metal work will be handled. An additional building is being erected for the woodwork and assembling departments. All the necessary mechanical equipment has been purchased.

Expansion of livestock activity in the sugar parishes of Louisiana is emphasized by the formation of the Ridgeland Company in Lafourche for cattle raising and the purchase for a cattle ranch of the El Dorado plantation of over 2000 acres in Point Coupee by W. G. Hurdle of Holly Springs, Miss., and Caldwell & Freeman of Maringouin, La.

The United States Government expenditures for fiscal year 1918 are now estimated at from \$15,000,000,000 to \$18,000,000,000, a sum equal to entire Federal expenditures from 1776 to 1917.

Recent report that the Florence mills of Forest City, N. C., will enlarge dyehouse was an error.

The Iron, Steel and Metal Trades

Spelter Only Bright Spot in Metal Markets.

New York, May 13—[Special.]—Spelter was practically the only active metal in the market for non-ferrous metals last week. Under an increased demand the market was very strong, with prices up one-quarter of a cent. Copper, lead and tin were unchanged from previous reports. An opinion is being developed in metal circles that the price of copper will be advanced to 25 cents a pound on June 1. Those who are watching the situation closely say that this is bound to be the ultimate result. Others are not quite so optimistic. There are also reports circulating in the trade that certain producers have been selling spot metal at above the Government price of 23½ cents a pound. They cannot be verified, however.

The copper market last week was very quiet. There was a limited amount of business done in futures, based on the Government price ruling on time of delivery. The attitude of buyers and sellers generally, however, was to await the final decision as to the price to rule after June 1, and meanwhile to enter into very few engagements.

Aside from a few small sales for prompt and May shipment at 6.50 to 6.55 cents St. Louis basis, there is nothing new to report regarding the transactions in lead last week. The market was quiet.

After a general improvement each day for the past fortnight the spelter market last week became very strong and active, and prices advanced one-quarter of a cent a pound. The demand rapidly increased, and buyers, not being able to get offers on their requirements, commenced to make bids. The market may be quoted nominally today at 7.12½ cents for prompt and May and 7.12½ to 7.25 cents for June and July. Sellers are getting very shy, and prices are liable to advance further.

The tin market is unchanged from previous reports.

Commercial Steel on Reduced Scale.

New York, May 13—[Special.]—The distribution of steel, other than that called for by direct Government orders, is engaging the closest attention of the steel mills. There has been no difficulty in meeting the requirement as agreed upon by the steel industry within the past week. Every ton of steel available for filling Government orders is now being so directed. The problem of distributing the remaining steel where it will be the most useful in winning the war has, however, been creating countless difficulties. Steel for oil development and transport and for agriculture come first, but there are almost infinite gradations in commercial steel requirements from essential to less essential and non-essential. Chance buyers experience the greatest difficulty in placing any orders. Unless the material is closely connected with the war there is no semblance of a delivery promise to be had, and practically not even an intimation as to the probable time of delivery.

While some of the mills are indisposed to enter tonnages at this time, the attitude of many is that since they wish to serve their customers as well as they can under existing circumstances it is better to have the tonnages on their books, as they can thus keep closer to their customers in this way and ascertain better what their requirements are.

There is commencing to appear a decided divergence between the percentage rates at which blast furnaces and steel mills, respectively, are operating. What would probably be a fair estimate for last week is about 90 per cent. of capacity. With the additional blast furnaces put in, and with others operating at better rates, the production of pig-iron is easily above 90 per cent. of capacity, and may be close to 95. At a rough estimate it is probably safe to say that the steel mills are operating at 5 per cent., or more, less than the blast furnaces. This divergence is generally attributed to shortage of scrap.

Tinplate production in April, according to latest authentic figures, was approximately the same as in March. Both months were fairly satisfactory, while January and February were poor. The four months together do not make up the average desired or expected for the year. The monthly average thus far has been well under 3,000,000 boxes. The mills have been hoping to reach an average of 3,250,000 boxes, but they did not produce this amount in April. Close to 95 per cent. of the mills

are in operation. Interruptions have been chiefly on account of the shortage of steel.

Sheets being shipped of late for war purposes, direct and indirect, represent fully 50 per cent. of the entire capacity. Some mills are operating at only this figure, and few are averaging above 75 per cent. The general average for the whole industry is thus about 65 per cent., leaving little left for purely commercial enterprises. All the sheets shipped under the category of war requirements are not, of course, directly the subject of Government orders, as there are many consumers operating chiefly on war orders without having the sheets specifically set aside as part of a Government order.

Blast furnace operations improved within the past week. Several large consumers of both foundry and steel-making iron who put out inquiries in April are understood to have been able to place considerable tonnages direct with furnaces, going over the heads of agents in so doing. It is believed in the trade that contracts of this kind, ranging from 10,000 to 20,000 tons, have been placed in the past seven days. In one or two instances it was known that the iron was required for Government work, and consequently the orders could be readily placed through intervention of the War Industries Board. There seems to be a disposition to ignore agents, as well as brokers, in the placing and distribution of orders for pig-iron at the present time.

The New York, New Haven & Hartford Railroad raised its embargo last week against shipments of pig-iron into New England by way of the Harlem gateway of this city. It is understood that several solid trainloads of pig-iron were to be shipped from Virginia furnaces into New York and New England territory during the latter part of April. In preparation for such shipments a number of Government permits were obtained for consumers of foundry iron working on war munition orders, but thus far no definite word in regard to shipments from Virginia has been received by local furnace agents.

Southern Iron Manufacturers Practically Out of the Market.

Birmingham, Ala., May 13—[Special.]—Sales of pig-iron in the Southern territory are in small lots and not very frequent, some of the manufacturers being practically out of the market. Regular customers are able to place an order or two for last half of year delivery, but generally speaking, there is no business being accepted right now. Every indication is that furnace companies are not only avoiding business, if possible, by reason of having sold heavily into the probable make for the last half of the year, but are watching the Government needs. Delivery of iron is quite active, lifting of Middle West embargoes having occurred. As a consequence of steady shipments again, there is a reduction of accumulated stocks of iron in the South. The make has not been up to expectations for some time now, though two additional furnaces will bring the May output up considerably. The make in Alabama fell below the anticipated mark in April, credit being given this State for 207,245 tons with 31 furnaces in blast, against 245,882 tons the previous April. The make for the first four months of this year in Alabama is given at \$59,092 tons, against 976,718 tons for the same period a year ago. The Tennessee Coal, Iron & Railroad Co. has put into blast a furnace at Bessemer, and the Trussville furnace has started making iron this month, so that it is safe to predict a favorable increase in the make for May.

Inquiries are still being received in number. There is intimation that large tonnages of iron will be needed during the last half of the year. Foundries and machine shops are making inquiries.

Because of its possible location in Birmingham, keen interest is taken here in the announcement by Judge Elbert H. Gary that, at the request of the War Department, a heavy artillery and projectile plant will be erected by the United States Steel Corporation. George Gordon Crawford, president of the Tennessee Coal, Iron & Railroad Co., attended the meeting of the presidents of the subsidiary companies of the Steel Corporation last week in New York, and it is understood that he made known the capacities and abilities of the Birmingham district. Alabama-made steel has proven successful in the manufacture of rail, bars, sheets and other shapes and has proven adaptable for toolmaking. There is no

doubt that site sufficient for a plant the size the Government desires is to be found in this district.

Home consumption of pig-iron lags by reason of the dull business with the cast-iron pipe companies. The melt at the pipe plants is off considerably. Foundries and machine shops have not only as much work as they can turn out, but orders are being offered which will keep them busy for many months to come.

Progress is again announced on the Fairfield works of the Tennessee Coal, Iron & Railroad Co. adjacent to the steel plant at Ensley. Construction of the buildings will be started this week and the contracts call for completion in four months.

Dealers in scrap iron and steel in the Southern territory are still uncertain about the market, though there is steady delivery on old contracts. Country scrap is not coming in to any extent, and as a consequence there is a decided reduction of stock on hand. The quotations remain about the same they have been for the past few weeks, though consumers in the home territory are not willing to pay the maximum prices of the Government. Some of the larger consumers of scrap in the South, the cast-iron pipe dealers, are not operating plants at near capacity, and there is no anxiety for delivery of scrap. The scrap people are getting all the railroad cars they can use for the delivery of the product. Some business may come from other sections where an impetus has recently been felt in the market and inducements in the shape of commissions aroused the dealers.

Quotations for pig-iron and scrap iron and steel in the South are as follows:

PIG-IRON.

No. 2 foundry, \$33.50 f. o. b. furnaces.
(Basic iron, \$32; revision by Government to be announced again by July 1, 1918; differentials on pig-iron the same as between Government regulations began).

OLD MATERIAL.

Old steel axes.....	\$30.00 to \$32.00
Old steel rails.....	24.00 to 25.00
Heavy melting steel.....	23.00 to 25.00
No. 1 R. R. wrought.....	25.00 to 27.00
No. 1 cast.....	23.00 to 24.00
Stove plate.....	30.00 to 32.00
Old car wheels.....	25.00 to 27.00
Tram-car wheels.....	21.50 to 24.00
Machine-shop turnings.....	17.00 to 17.50
Cast-iron borings.....	12.00 to 12.50

Cannot Produce Cotton at Former Prices.

P. F. JONES, Marion, S. C.

I picked up in my last mail a paper with your article on cotton, "Actual Cost of Growing Cotton Must Hereafter Determine Price," by W. W. Morrison. I am not given much to writing for the papers, but I am obliged to know my lines in business, and I know that Mr. Morrison is correct in his article.

There are now fast changes in farm work in many States, and the fact faces us that we cannot produce cotton at the old price any more. We cannot produce cotton for less than 30 cents and line up a comfortable balance in the account.

I keep a farm account. Cotton has been a fly in the ointment for years, and does not pay. I have a large cotton gin capacity—70 bales in 12 hours. I own several farms, and the very poorest investment to me is my farms, because we have not figured the fixed charges or overhead expense, and this State would be a bankrupt now were it not that our timber lands came to the rescue. The virgin timber in the woods that surrounds the farms is now about cut away, and the bare fields only stand facing us.

We can make cotton at 30 cents under the tension of the war, but it is not going to make the cotton farmer very rich then.

We no longer now can hold farm labor on farms for \$30 per month, for even for old men and women there is a better demand and better wages in other payrolls, and to the factories and to the public works they are going, fast leaving the plantations.

Our country needs cotton; it is a war bride; it needs the by-product of the lint, which is the fat seed, but it must now pay for the labor or lose the cotton crop or in the end bankrupt the cotton farmer.

I earnestly hope more dependable articles, like W. W. Morrison's, will appear in print. I hold at present more than 100 bales of spot cotton, but that cotton made on my own farm represents no margin of profit at expenses of today.

\$1,500,000 Manganese Company Chartered.

Pittsburgh capitalists have chartered the Shenandoah Valley Manganese Corporation of Stanley, Va., for the purpose of developing Virginia manganese properties. This company is capitalized at \$1,500,000 and its officers are George S. Davison, president, and Albert P. Meyer, secretary, both of Pittsburgh.

RAILROADS

TO PROTECT RAILROAD SECURITIES.

National Association of Owners Appoints Committee to Work on Contract.

The National Association of Owners of Railroad Securities, of which S. Davies Warfield of Baltimore is president, has issued a letter addressed to the directors of railroads which are now under Government control and operation, calling attention to the fact that they have the responsibility of representing all classes of securities issued by their respective railroads, as the contracting parties on behalf of the owners of the properties in the execution of the proposed contract which each railroad is to make with the Government.

After numerous meetings of the subcommittee of the association and also following conferences attended by individuals having financial interest in the railroads, many of them being also directors thereof, a new committee has been formed which is known as the special committee representing owners of railroad securities. It is headed as chairman by Mr. Warfield, who is president of the Continental Trust Co. of Baltimore, the other members being Gordon Abbott, who is chairman of the board of the Old Colony Trust Co. of Boston; James Brown of Brown Bros. & Co., bankers, New York; Frederick H. Ecker, treasurer of the Metropolitan Life Insurance Co., New York, and John J. Pulley, president of the Emigrant Industrial Savings Bank, New York. Samuel Untermyer and B. H. Inness Brown of the law firm of Hornblower, Miller, Garrison & Potter, New York, are counsel for the committee.

Mr. Warfield says that this committee desires to co-operate with the Government in framing the contract between the Government and the railroads, a tentative draft of which has been prepared by Government officials for the railroads to be controlled and operated as provided in the railway bill which passed Congress during a period which shall not exceed a year and nine months after the end of the war. The contract relates to compensation for the owners of the railroads for the use of their properties, and it is the wish of the committee to participate in the work of preparing the contract especially along the lines mentioned by President Wilson in his address to Congress when he gave his reasons advocating Government operation of the roads and saying that it was necessary for the value of railroad securities to be justly and fairly protected; that their sum total was some ten or eleven thousand millions, constituting a vital part in the structure of credit, the unquestioned validity of which must be maintained.

Therefore the committee has been composed so as to represent the various channels for the investment of the funds of the people and besides being financiers, several members of it also act as railroad directors, and are thus familiar with railroad conditions and credit. It is ready to co-operate with any agency aiming to produce a satisfactory contract for all interests, as well as to work with the Government's representatives in the matter.

The association, it is stated, represents more than \$4,000,000,000 of the railroad securities.

OUTLOOK FOR CLINCHFIELD ROAD.

Federal Control Expected to Weld the Line Into One Transportation System.

An interesting commentary upon Federal control of the railroads is found in the annual report of the Carolina, Clinchfield & Ohio Railway Co., in the course of which President Mark W. Potter says:

"It is believed that the line of this company, serving as a connecting link between the gathering and distributing lines in the Central West and the Southeast and affording the shortest and most efficient route between important sections, will, under Government control as a part of a national transportation system, perform its natural transportation function and handle tonnage which should, upon consideration of economy and efficiency, flow to and over it.

"By being able, in connection with relatively light burdened lines at the North and South, to efficiently transport traffic between producing and consuming points in the North and South, it should render important service to the shippers, while it relieves circuitous, overburdened main lines.

"It is expected that in determining the compensation for the use of the railway under Federal control con-

sideration will be given to the fact that the properties have been passing through a development period, and that the rental will be determined by recent earnings and the value of the line as a part of the national system."

The income statement in the report, which covers the year 1917, shows total operating revenue \$4,285,390, increase as compared with 1916, \$1,008,903; net operating revenue \$1,835,080, increase \$300,872; balance after taxes \$1,608,203, increase \$229,275; gross income \$2,231,924, increase \$406,770; surplus after charges \$890,794, increase \$312,075.

New Equipment.

The American Car & Foundry Co. will build 2500 steel hopper cars on Government contract at its Huntington (W. Va.) plant. Their capacity is 55 tons.

Southern Public Utilities Co., Charlotte, N. C., has ordered 4 large steel electric passenger cars from the Southern Car Co., High Point, N. C.

Alabama & Vicksburg Railway has ordered 3 Mallet locomotives from the Baldwin Locomotive Works, Philadelphia.

Among the inquiries reported in the market for tank cars are these: 200 for the Todd interests, Gainesville, Tex.; 50 for the Mutual Oil Co., Kansas City, Mo.; 7 for the Illinois Central Railroad; 10 for the Zimmerman-Alderson Car Commission Co., Dallas, Tex.

Cement Railroad Ties a Success.

The accompanying illustration shows a piece of track laid with cement ties on the Riverside, Rialto & Pacific Railroad, a short line operating from Riverside to Rialto, Cal. These ties, which were invented by J. H. G. Wolf and others of San Francisco, were put down in 1913, and none of them, save in the case of 1 out of



TRACK LAID WITH CEMENT TIES.

60 laid, have been renewed in five years, although they are subjected to the severe tests of both steam and electric traffic. They are of hollow cement construction, and the rails are connected to them on wood and steel resilient tieplates. The trains running on this road are pulled by locomotives weighing 87 tons, and the steel cars carrying cement weigh, loaded, 140,000 pounds each. The normal traffic speed is 45 miles per hour.

Seaboard's Yearly Net Decreased.

The income statement in the annual report of the Seaboard Air Line for the year 1917 shows gross revenue \$30,345,146, increase as compared with 1916, \$4,160,659; operating expenses and taxes \$23,097,431, increase \$4,354,833; net operating revenues \$7,247,715, decrease \$194,174; operating income \$7,237,881, decrease \$191,118; gross income \$7,629,256, decrease \$260,174; applicable to interest \$6,962,471, decrease \$572,832; balance \$2,104,067, decrease \$757,943; net income after interest on adjustment bonds \$854,067,

decrease \$757,943. The balance-sheet displays total assets of \$211,348,627, increase \$18,182,853. The investment in road and equipment is \$193,985,994, increase \$5,503,691.

Railroad Notes.

At the annual meeting of the Winston-Salem Southbound Railway Co. A. C. Needles of Roanoke, Va., was elected a director to succeed Joseph Doran of Philadelphia, who resigned. Mr. Needles is also vice-president in charge of operation of the Norfolk & Western Railway, which, together with the Atlantic Coast Line, controls the Winston-Salem Southbound Railway.

The Seaboard Air Line announces the following appointments: J. B. McClain to be bridge engineer, succeeding Guy Pinner, resigned to accept service elsewhere, and W. C. Binford to be assistant bridge engineer, succeeding Mr. McClain, promoted.

Short Line to Camp McClellan.

L. L. Crump and others, composing the committee appointed at Anniston, Ala., to secure subscriptions for \$100,000 and to organize a company to build a six-mile railway from Anniston to Camp McClellan, contemplate construction of an electric railway, but are interested in the possibilities of gasoline motor cars if a saving could be accomplished. They would like information. Are in the market for relaying rails and also for second-hand or rebuilt cars if line is electrified. Practically all of the fund has been subscribed.

State-Wide Rains Have Visited Texas.

Austin, Tex., May 10.—[Special.]—Excessive rains in the central and more northern portions of the State during the past two weeks have injured cotton prospects somewhat. It is expected, however, that what damage may have been done to the growing plants will be quickly overcome should a period of warm, clear weather now follow the rains. Many of the fields are weedy, and will require much labor to make them clean. Thinning or chopping the plants has also been delayed on account of the wet weather. The rains are generally regarded as a big relief to agricultural conditions throughout the State. The corn crop promises to be a bumper one, but it is doubtful whether wheat will be benefited to any great extent by the recent precipitation. Spring oats and all kinds of forage are doing splendidly.

In the western part of the State, where there had been no rain for 18 months, precipitation during the first few days of May ranged from two to three inches. The drouth is now completely broken. Ranch and farm interests are benefited enormously. Water holes that had been dry for many months are now filled and the bare range is already beginning to be carpeted with grass. Millions of acres of land that was made ready for planting long ago is now being seeded with various kinds of crops, particularly Kaffir corn, maize and feterita. An unusually large acreage of peanuts is being planted.

Comparatively little of the \$2,000,000 which the Legislature appropriated for the relief of drouth sufferers in Western Texas has been distributed. Now that the rains have come, it is expected that the calls for assistance from the people of that region will not be numerous.

All of the territory extending south from Austin to the Rio Grande and to the Gulf-coast has been visited by heavy rains during the past several days. Late planting is in progress all through that region.

Monthly Production of Steel Ingots Since June, 1917.

The American Iron and Steel Institute has issued the following report showing the steel ingot production of the United States by months from June, 1917, to April, 1918, inclusive, by 29 companies which in 1916 produced 88.14 per cent. of the total production of steel ingots in that year:

STEEL INgot PRODUCTION BY MONTHS.				
Months	Open hearth.	Bessemer.	All other.	Total.
June, 1917.....	2,365,772	809,552	8,805	3,083,929
July	2,152,479	777,171	9,465	2,939,115
August	2,251,013	863,873	8,331	3,123,217
September	2,195,556	770,064	6,639	2,972,259
October	2,475,754	870,494	5,687	3,351,935
November	2,384,218	772,489	9,550	3,166,257
December	2,195,832	524,084	13,806	2,733,722
January, 1918..	1,763,356	429,588	10,901	2,203,845
February	1,805,223	454,457	14,051	2,273,731
March	2,331,948	763,255	16,078	3,110,281
April	2,377,974	709,249	16,187	3,103,410

Good Roads and Streets

Bonds to Be Voted.

Miami, Fla.—City votes June 26 on \$40,000 bonds for street paving.

Contracts to Be Awarded.

Goldsboro, N. C.—City will expend \$40,000 for street paving.

Little Rock, Ark.—City appropriated \$40,000 for street improvements.

Leffington, N. C.—Harnett county will build roads, having \$30,000 available.

Walnut Ridge, Ark.—Lawrence county will build 10-mile highway to cost \$60,000.

Huntington, W. Va.—City receives bids until May 27 for 600 feet of vitrified brick paving.

Florence, Ala.—Lauderdale county receives bids until June 10 for building 10-mile highway.

Parkersburg, W. Va.—City plans \$46,322 expenditure for street paving and \$7640 for curbing.

Vaiden, Miss.—Carroll county receives bids until June 1 for building 30 miles of sand-clay roads.

Annapolis, Md.—Anne Arundel county opened bids May 14 for constructing 1½-mile concrete road.

Newport, Tenn.—State Highway Commission appropriated \$25,000 for building highways in Cocke county.

Augusta, Ark.—State Highway Commission, Little Rock, has plan for 23 miles of gravel road construction to cost \$136,437.

La Grange, Ky.—Oldham county awarded contract for building 3¼-mile road, \$20,000 being available for expenditure.

Wichita Falls, Tex.—Wichita county opens bids May 16 for nine miles of gravel surfacing with bituminous surface treatment.

Dinwiddie, Va.—Dinwiddie county will expend \$20,000 to prepare highway for further improvements by State Highway Commission.

Hardy, Ark.—Sharp county will build 13-mile dirt highway, \$35,000 being available.

Jacksonville, Fla.—Duval county receives bids until May 28 for 25,000 square yards of resurfacing and for 5000 square yards of brick paving, with 10,000 lineal feet of concrete curbing.

Contracts Awarded.

St. Louis, Mo.—City awarded \$38,740 contract for street paving.

Gadsden, Ala.—Etowah county awarded \$23,000 contract for building 4½-mile highway.

Gadsden, Ala.—Etowah county awarded contract for building 4½-mile highway.

Good Roads Progress in Texas.

Austin, Tex., May 11.—[Special.]—In a report which he has just made to Governor W. P. Hobby, George A. Duren, State highway engineer, gives a review of what that department has accomplished since September 1, 1917. During that period many State highway designations were confirmed and designated, and allotments of Federal aid were made for 140 projects to 98 counties, amounting to \$3,194,419.78; also State aid was given 74 counties, amounting to \$722,494.92. One project has been completed and three are under construction, while contracts have been awarded for five and a great majority of the remaining projects will be begun in the near future. These projects involve a total expenditure of \$9,280,819.24, and will furnish employment for approximately 7000 people per year.

"On the completion of this proposed work 2000 miles of improved highways will be added to improved highway system of Texas," says the report. "Nearly all of this construction has been made possible by reason of State and Federal aid. Engineering assistance has been furnished nearly every county in the State free of cost to the counties." The report also shows allotments of automobile license fees to counties have been returned to counties for maintenance of county highways to the amount of \$897,816.23.

Engineer Duren, on behalf of the Highway Commission, recommends an amendment to the State highway act to the next session of the Legislature providing for the issuance of annual registration serial plates, in lieu of the present scheme of permanent plates and annual seals and certificates; also providing for distinctive number plates for officers' cars or cars exempt from payment of fees, and also distinctive plates for commercial cars. Engineer Duren also recommends that a date be set for a convention of tax collectors and automobile clubs and traffic officers to meet with the Highway Commission "for discussion and for the purpose of conducting a school of automobile registration. This convention should be held one or two months before the next meeting of the Legislature." It is also recommended that a convention of county road officials be held next summer with the State Highway Commission,

and as a branch of this convention the highway department associated with the schools of engineering of the University and the Agricultural and Mechanical College hold a school of instruction in matters relative to highways.

Engineer Duren also suggests that at the expiration of the quarter ending on June 30 engineering aid by the department to counties relative to making the applications for aid be discontinued, and that the work of the department be directed mainly toward the completion of county road maps for those counties that have not furnished county road maps as required by law.

TEXTILES

Establishing \$50,000 Hosiery Mill.

Details have been determined for the Staley (N. C.) Hosiery Mills, chartered in April with \$50,000 capital. This company will erect a mill building and install 25 knitting machines with power equipment, the output to be infants and misses' ribbed hose. It has organized with C. P. Fox, president, and C. M. Staley, secretary-treasurer.

\$125,000 Knitting Mill Chartered.

R. R. Ragan and Levi Hayworth of High Point, N. C., and A. H. Ragan of Thomasville, N. C., have incorporated the Ragan Knitting Co. of Thomasville with a capitalization of \$125,000.

Textile Notes.

M. B. Smith & Sons, Cheraw, S. C., plan to establish a hosiery knitting mill.

An addition to cost \$9500 will be built by the Ohio Falls Dye & Finishing Works of Louisville, Ky.

A one-story brick building to cost \$24,703 will be erected by the Lane Cotton Mills of New Orleans.

J. C. Collier of Barnesville, Ga., and Floyd S. Corbin of New York plan to build a cotton-yarn mill at Barnesville.

The Stout Brothers Lumber Co. has changed its name to the Siler City (N. C.) Hosiery Mills and increased capital to \$100,000.

W. W. Brown and associates, Burlington, N. C., will establish a hosiery knitting mill in a building to be erected by the Central Loan & Trust Co.

Cotton duck will be manufactured by the Russell Cotton Mills, Lavonia, Ga., organized with \$100,000 capital; J. R. Dortch, president; J. P. Stockton, treasurer; C. A. Sweet, manager.

One thousand dozen pairs of hose will be the daily capacity of the Kernersville (N. C.) Knitting Co., recently chartered with \$125,000 capital. This company has its offices at High Point, N. C., and has purchased its mill machinery.

A branch plant will be established at Roanoke, Va., by the Carolina Cotton & Woolen Mills of Spray, N. C. It will manufacture children's finished underwear, and the daily output will be from 1000 to 1500 suits. Three hundred women will be employed.

An additional building to be equipped for finishing cotton yarn will be erected by the Marlboro Cotton Mills of McColl, S. C., for the company's No. 4 mill. The plant's picker-room remodeling has been completed and the carding machinery has been installed, while the pickers with some new equipment have been placed in a building recently completed. Another new structure, nearing completion, is a 225x100-foot warehouse, besides an addition to the supply-room of Nos. 1 and 2 mills.

Broom Corn Industry Developing in Lower Rio Grande Country.

Mercedes, Tex., May 10.—[Special.]—Harvesting the first of this season's crop of broom corn in the lower Rio Grande Valley of Texas will begin about June 1, according to the statements of growers. In the Mercedes section, where there is a large acreage of the brush, the crop will be handled in a large brush-drying plant. This plant will be installed at Mercedes by R. E. Kern, Jr., T. R. Riggs and Dr. E. L. Rothrock. The building which is now being remodeled for the purpose is 50 feet wide and about 125 feet long, and will be capable of drying by the process from 60 to 75 acres, and as it requires but 10 days to finish the drying process, it is evident that the building will have ample

capacity to provide for the needs of the farmers in this respect. The crop will also be threshed and baled ready for shipment on the same premises. Buyers will be on the ground and Mercedes will have the facilities for handling the crop of broom corn equal to any in the valley, it is claimed. It is said that the natural process of drying broom corn is far superior to the artificial, and that the brush dried naturally has a better color and commands a higher price on the market.

The establishment of the drying plant will greatly stimulate the planting of broom corn in the Mercedes section, as many farmers have hesitated about putting in an acreage until they were assured of drying facilities without being compelled to build their own sheds.

The market for broom corn looks very favorable, especially for the first quality product, and a large acreage will yet be planted in addition to that already growing. Three crops a season may be grown upon the same land in the valley region.

Farm Tractors Give Impetus to Agricultural Activity in Georgia.

Atlanta, Ga., May 18.—[Special.]—That Georgia is rapidly coming to the front as an agricultural State, diversification being the order of the day, is being forcibly demonstrated in this State during the month of May, when, up to the present writing, two tractor demonstrations have been scheduled, the one for Albany, in Southwest Georgia, having taken place on the 7th and 8th instant.

Tractor demonstrations are new in Georgia, and while there are some 500 tractor owners, the use of tractors had not become general until an impetus was given, headed by Governor Hugh M. Dorsey, by the demonstration now in progress at Albany. Later one is to be held at Dublin, in middle Georgia.

Several very interesting features of the tractor demonstrations in Georgia consist of, among other things, the almost unthought of and unheard of fact in the South that the tractors are being driven by women, headed by Capt. Ten Eyck Harrington of Atlanta, one of the first women in Georgia to take seriously the matter of driving motor vehicles, trucks especially, as an aid in war work.

The prime object of the tractor demonstration is to promote the use of machines as labor savers in Georgia, due to the scarcity of labor in this State.

Harry Hodgson, executive committeeman of the Georgia Chamber of Commerce and chairman of the tractor committee of the State Council of Defense, attended the demonstration at Albany, as did numbers of prominent citizens of Georgia, among them being, besides Governor Hugh M. Dorsey, who made the opening address, Mrs. Samuel Inman, chairman of the women's committee of the Council of National Defense and a member of the State Council; J. J. Brown, commissioner of agriculture of Georgia, who spoke on the "Farm Labor Situation in Georgia;" Capt. Ten Eyck Harrington, S. J. Slate, Prof. C. L. Hart of the State College of Agriculture; Prof. J. N. Harper, director of the Farm Service Bureau; H. L. Thompson, tractor demonstrator from Illinois, and President R. R. Wright of the Georgia Industrial College (colored), Savannah, Ga., who made an able address on "War Service by the Negroes."

The Dublin tractor demonstration will be the next on the schedule, and demonstrations will be held until all sections of Georgia have been covered or until the end of the growing season, which will extend until late in the fall, or perhaps until Christmas, due to the planting of small grain, etc., Georgia enjoying one of the longest growing seasons in the country.

Big West Virginia Coal Land Purchase.

New York capitalists, connected with the National City Bank of that city, have concluded arrangements for the purchase of the Josiah V. Thompson coal fields in West Virginia and Pennsylvania, comprising a total area of 275,000 acres of virgin bituminous coal land. The properties include 134,000 acres of land in West Virginia and 141,000 acres in Greene, Washington and Fayette counties, Pennsylvania, the price being reported as about \$20,000,000.

This big purchase must be confirmed by Federal courts, and it is understood that more than \$200,000 was expended by the buyers for their investigations before the terms of sale were determined. It is understood that the New York investors plan the organization of a corporation for the development of the properties, in the ownership of which there are more than 700 individuals interested with Mr. Thompson.

Comments, Kicks and Commendations

In order to permit our readers to express their views on what the Manufacturers Record stands for, this page is open for suggestions, comments or criticisms.

All Enlisted in a Great Cause.

Thos. H. Betty, Betty & Sons Lumber Co., Montgomery, Ala.—We are herewith enclosing you our check for \$5, renewing our subscription for another year.

We could not do without your paper. Your editorials alone are worth more than the subscription price. Your first-page editorials show that your heart is in the right place, and your front-page editorials have, in our opinion, gained your company's publication many subscribers.

All of us, young and old, are enlisted in a great cause, and with such a paper as yours representing the truth, which must prevail, it will be a question of only a short time before victory will come, and we, the citizens of this great country, will rejoice with our Allies in the triumph of victory, forever crushing autocracy, militarism and Prussianism; wiping it off the map entirely, never to return.

Should Be Branded and Punished as Traitors.

C. C. Zimmerman, vice-president National Surface Guard Co., Chicago.—I have been looking forward each week for your editorials which appear on the front cover of the MANUFACTURERS RECORD. The one which appeared in your issue of May 2 hits the nail square on the head.

Every person within this country or our territorial possessions with German sympathies, whether they be alien, born or naturalized citizens, should be branded traitors, and as such receive the punishment due a traitor.

Keep up the good work; you are hitting the bull's-eye every time.

I wish you the success you so justly merit.

Admires Hard-Hitting, Conviction-Compelling Utterances on the War.

L. H. Fitzhugh, general manager Gulf States Shipbuilding Co., Ltd., Dallas, Tex.—Enclosed find my check for \$17.50, covering your charges for 1000 reprints of your intensely patriotic and timely editorials.

I am also enclosing personal check for a year's subscription to your paper, and wish to express our sincere admiration for your hard-hitting, conviction-compelling utterances on the war.

Be assured that we shall do all in our power to spread the gospel you are preaching.

Spreading the Facts of the War.

G. W. Ribble, general superintendent Postal Telegraph-Cable Co., Atlanta, Ga.—Enclosed find check for \$2, for which please send me 50 copies of the editorial and cover-page reprint mentioned in the attached clipping. I want these for personal distribution and use on the bulletin boards at the principal offices of this company in the Southern division.

I consider these the strongest and most convincing articles which have appeared among the many exceptionally able ones in your publication.

Spreading the Facts—An Example for Others.

James Simpson, Jr., Florence, Ala.—Enclosed please find check for \$5 for a year's subscription to your valuable paper. I assure you that I appreciate the stand you take in winning the war. I pass my paper on to others when through reading it, that they may read the greatest editorials I think of any journal in America published today.

With best wishes, and hoping you may keep up the good work.

Passing the Word Along.

A. B. Ayerst, the Jessup & Moore Paper Co., Wilmington, Del.—I enclose \$5 for renewal of subscription to the MANUFACTURERS RECORD. I consider your publication the best value for the money of any of the magazines that I read. I look for it every week, with the knowledge that I will have the best reading in articles on the war that I can find anywhere, particularly your editorials, which are written in a red-blooded American spirit, and I see to it that it is read by others who do not subscribe for it.

Cold Facts Boldly Presented.

C. B. Allen, president C. B. Allen Graphite Co., Ashland, Ala.—Please find enclosed check for \$5 for renewal subscription to the MANUFACTURERS RECORD.

We appreciate very much the bold way in which the MANUFACTURERS RECORD presents to its readers the cold facts during this critical period through which our nation is passing.

Profited by Editorials.

Binswanger & Company, Memphis, Tenn.—We wish to take advantage of this opportunity to compliment you on the class of paper you have been issuing since the war started, and we know you will be glad to know that we have taken great interest in and profited from your editorials.

We wish for you continued success.

Congratulations on Strong Stand Taken.

E. McLean Long, New York, N. Y.—I have been reading your paper with a great deal of interest, and congratulate you on the strong stand you are taking on the vital problems of the day. Continue, and send the MANUFACTURERS RECORD to my home address.

FOREIGN NEEDS

Machinery and equipment wanted abroad are mentioned in many letters received by the MANUFACTURERS RECORD, which is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. For the benefit of our subscribers seeking foreign trade we publish the following extracts from recent letters:

Opportunities in British Guiana.

BAYLEY & Co., LTD., Georgetown, Demerara, B. G.

We thank you for MANUFACTURERS RECORD, which we have perused with interest. The outlook for American goods is rosy indeed, as it is difficult to secure manufactured articles and foodstuffs from Europe. We have been endeavoring to open up new connections in the United States, but our efforts have met with little response. Most exporters or manufacturers inform us that their domestic trade absorbs production or they do not consider the present is opportune to enter the foreign market; others put up obstacles in paying for exports; others who prefer to wait "until the war is over." The war is not to last forever. It must come to an end some day. When this event arrives, those firms who have completed selling arrangements in markets abroad will occupy a more advantageous position than firms who refused to look ahead. We consider this policy wrong, not only from a patriotic and economical view, but from the view of hard facts of business. Firms who have their future policy now and have made arrangements to meet the new conditions bound to arise are certain to succeed and maintain their position in the markets abroad. We ask manufacturers and exporters to wake up to these facts and prepare the ground for a large and profitable export trade.

In Demand for Egypt.

ZERBINI & ANGELETTOS, 64 Midan Street, Alexandria, Egypt.

We enclose draft for subscription to your valued review. We shall be pleased to have you call the special attention of American manufacturers to the articles on which we are specialists, as follows: Studs and tresses ribbons; threads; buttons, longcloth shirting, light and heavy; silk goods; drapery, linen, cotton, woolen or mixed; hosiery; leather portfolios, purses, bags, trunks, etc.; fancy goods for lady hair dressing; watches; chains; shirt buttons; nails; pipes; Panama hats; hatbands; hat leather; epsom salt; green copperas; borax; alum; caustic soda; soda ash; light silicate of soda; anilines; bichromate of potash; hyposulphite of soda; bicarbonate of soda; sal-amac; muriate of ammonia; salamoniac; venetian red; starch blue for linen; packing paper; writing paper; pasteboard; matches; candles; lubricating oils; cottonseed oils; olive oil; linseed oil; castor oil, etc.

For South American Trade.

CLIMACO ROMERO, Palmira, Colombia, S. A.

I am about to make a business trip (starting July 1) through South America, especially giving attention to Ecuador and Chile—and not overlooking Peru, Argentina and Brazil. I purpose looking over the commercial situation in the principal cities, collecting information that may be of service to the commerce of the United States. I would like to act as representative to advertise and push American products. Let me know if you think it advisable for me to come to the States for a personal understanding with manufacturers. Put me in communication with exporters who wish to deal with South America. I was formerly employed here by Guklermo von Breyman & Co; have been judge and magistrate; treasurer of district; secretary-treasurer electrical company and of other important corporations; am agent here for Romero and Ulloa & Co.

For Dutch East Indies Plantations.

VAN STOLK'S COMMISSIEHANDEL, Netherlands East Indies Department, 8-10 Bridge Street, New York.

A few of the articles in which we feel specially interested are: Automobiles; plantation trucks; rubber tires; glass rubber cups for collecting rubber from the tree; cement. Our aim is to get in touch with important manufacturers who are not represented in the Dutch East Indies. Being in close connection with a large number of plantations, we can attain expected

results for the right party who wishes to avail himself of our organization in securing an outlet for his product in the Dutch East Indies.

Cuba Wants American Machinery.

RUDOLFO HUBER, Compostela 90-92 Ant., Habana, Cuba.

I am interested as follows: Machinery for manufacture of gaseous drinks; for manufacture of self water, also in syphons; for washing, filling and closing bottles; bottles in the one-half, three-fourths and two-third sizes, and siphons; installation for manufacture of ice; ammonia for manufacture of ice; metal stoppers, with cork lining, for bottling industries; machinery for manufacture of horn combs—presses, saws, cleaners, polishers, etc.; male and female hooks for corsets; machinery for making eyelet holes for corsets.

Tunis Needs Various Products.

G. BOCCACCACI, Tunis, Algiers, Africa.

The products needed in Tunis, and for which I desire to secure agency, are: Agricultural machinery; supplies for building steam railways; cotton and woolen fabrics; stockings; handkerchiefs; drawers; waists and underwaists; wheat; coffee; sugar; dried beans; preserves and fruits; household articles and vessels; hardware; spigots; iron; tin; lead; accessories for agricultural work; chemical products; carbonate of soda; washing soda; manganese; asphalt; printing paper; writing paper; paper for typewriting machines; cardboard and other kinds of paper products; envelopes, etc.

From Dutch West Indies.

KAREL CROES, Aruba, Dutch West Indies.

I am exporter and importer of merchandise and provisions. I export: Aloe, in demand among druggists and chemists, pharmacutists; we load it here in cases of 125 pounds; Dividivi, well-known in your country; hats, exported each year from this place to extent of 30,000 dozen; principal grades are jipijapa and palm hats.

For Trade With India.

S. P. MUTIUSWAMA PILLAY, Tuticorin, India.

The lines in which I am interested are: Exporting senna leaves and pods, nux vomica, coir-yarn and other South Indian raw products to America, United Kingdom and Japan; importing cotton yarn, glassware, enamelware, varnishes, enamels, papers of various sorts, metals, etc.

India Needs American Machinery.

SIRDAR CARBONIC GAS CO., LTD., K. DORAI SWAINE, Manager, Delhi, India.

We want to know makers of machinery for manufacture of white lead and red lead; saccharine (sugar substitute) by the process of fractional distillation from tar light oil obtained from heating coal tar, i. e., distillation plant; chemicals.

India Needs These Manufactures.

T. R. DIAMOND & Co., 151 Broadway, Madras, India.

Announce through the reading columns of the MANUFACTURERS RECORD that we are interested in tires, tubes, rubber goods, sundry lines of metals, hardware, stationery, all sorts of novelty goods, etc.

Chemicals, Oils, Canned Products, Etc.

HOLLANDIA COLONIAL Co., Genoa, Italy.

We trade in chemicals and pharmaceutical products, tallows, greases and oils for soapmaking, raw material for industries, canned products, dried fruits, cocoa, etc.

Brazil Needs American Manufactures.

LEE J. KING, Room 2239 at 21 Park Row, New York.

I am representing Sampaio Correa & Boltcher of Rio de Janeiro, importers and manufacturers' representatives. We are interested in machinery, hardware, oils and paints.

Chemical Plants for India.

SIRDAR CARBONIC GAS CO., Delhi, India.

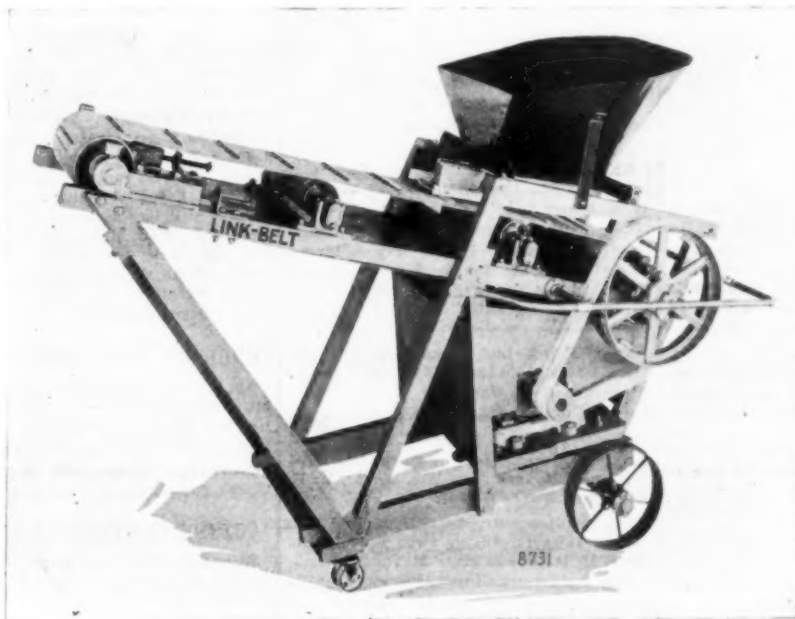
We want to know chief firms who can supply chemical plants for chemical industries.

MECHANICAL

Illustrations and descriptions having news value pertaining to developments in machinery, mechanical devices and inventions will be considered for use in this department.

A New Loader for Box Cars.

A low-priced machine for loading any kind of loose material into box cars has recently been placed on the market. It was lately employed to handle sand, stone, gravel and similar substances, and it is described by the manufacturer as being one of the greatest labor-saving devices ever used for this sort of work. The accompanying illustration, which almost explains itself, displays the machine, which is known as the Link-Belt BX Loader. It is portable, and is driven by either a motor or a gas engine, and it handles the material de-



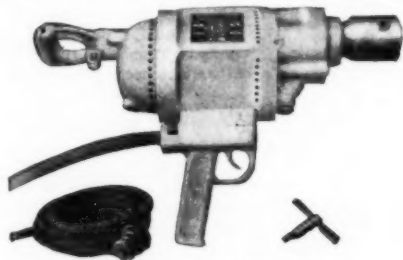
THE MACHINE AS IT LOOKS AT WORK.

livered to it through the steel hopper on a flat belt. In a recent test, says the report, it loaded 80 box cars in six days with but two men attending to it. Its capacity is from 80 to 100 tons an hour.

Estimating that it will take three men at least two and a half hours to load one car, the manufacturer, the Link-Belt Company of Nicetown, Philadelphia, Pa., compares this with the loader, which it says, with two men, will do the same work in 35 minutes, which affords an idea of the usefulness of the machine, that sells for \$600, with either motor or gas engine as desired.

Portable Electric Drill With Pistol Grip.

A portable electric drill of remarkable capacity and efficiency is one of the striking productions of American inventive and mechanical skill now in the market. The illustration herewith shows one of this type which was designed with particular reference to preventing the breakage of drill bits when operating the switch. To accomplish this desired efficiency and economy the control is arranged like that of an automatic pistol, one finger operating the trigger-like switch control without affecting steadiness or support of the tool. It is there-



PISTOL-GRIP ELECTRIC DRILL.

fore not necessary to release the grasp on the handle to either turn a switch, press a button, push or pull a handle, when the drill point breaks through and thus allow the weight to sag on the drill bit. In using this tool the grip is instinctively tightened when the drill breaks through and control is retained, stopping the drill without breaking the bit.

Other features of these new drills described by their

manufacturers are that the motors employed were designed with series compensated windings, giving them characteristics particularly needed in this class of service, and they will accommodate their speed to the size of drill which is being used. They do not take a heavy starting current, and they are able to start easily under a heavy load and firmly stick to the job. Moreover, they can be operated with current from any electric lamp socket on either a direct or an alternating current, which is noted as a great advantage in places where there are different kinds of current. Then there is an automatic forced draft cooling system to keep down the temperature of the motor windings and prevent overheating even under heavy loads and hard use. All bearings have automatic lubricators, a non-fluid grease being held in a grease-tight compartment completely separated from the motor windings. The chuck is strong and rigid and the chuck spindle, which is hardened and ground, runs in a high-speed bronze bushing

that is renewable, the end thrust being taken care of by a ball thrust bearing. It is further claimed that this drill is of unlimited adaptability, and the drill spindles are offset for close corner work. Furthermore, it is made as light as possible to be consistent with the proper margin of strength. Casings and handles are of aluminum.

These drills are manufactured by the Black & Decker Manufacturing Co., 105 to 115 S. Calvert street, Baltimore, Md., which several months ago also established at Towson, Md., a suburb, an additional plant to manufacture the drills and electric air compressors. The first building at Towson, now in use, is 200 feet long and 60 feet wide. It has railroad facilities, being immediately on the line of the Maryland & Pennsylvania Railroad, which connects directly at Baltimore with other lines entering that city.

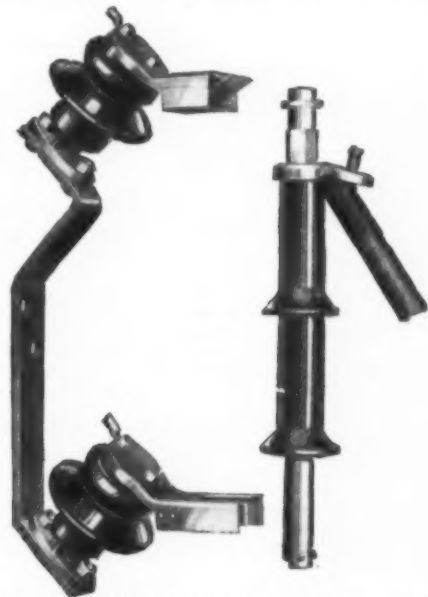
These portable electric drills are employed extensively in building ships, manufacturing war equipment of various kinds and also in the production of ammunition. The electric air compressors are used for operating pneumatic riveting hammers in similar lines of industry, for inflating automobile tires, operating spraying machines and for various other purposes. One of the company's recent orders was for 1200 machines for a London concern.

Combined Fuse and Disconnecting Switch.

In the operation of small outdoor substations the combined fuse and disconnecting switch here illustrated is used primarily to protect transformer banks where no primary switches are required. The fuse is suitable for opening the exciting current not exceeding 300 Kva. Secondary switches should be provided, so that the load can be removed in case it should become necessary to open the primary side with fuses. The fuse-holder is removed by a fuse-hook from the ground. To open the circuit the holder is lifted completely out of the contacts by the fuse-hook, which is so constructed that the fuse-holder will hang vertically when held by the hook. Then, if desired, the upper end of the fuse-holder is inserted in and hangs from the cap partly surrounding the lower contact clips. To close the circuit the upper contact of the holder is placed in the

upper clips by the operating hook and then the lower contact is pressed by the hook into the lower clips.

The supporting insulators are of the petticoat type. The fuse-holder has petticoats so spaced as to provide ample creepage surface. The contact parts at the ends of the fuse-holder are of brass, and when the holder is in normal operating or closed position engage with the stationary contacts on the supporting insulators. The contacts are protected against the effects of ice, sleet



HOW FUSE HOLDER IS REMOVED WITH FUSE HOOK.

and snow by the method of mounting and by means of a punched hood attached to the top of each supporting insulator.

The fuse passes through the center of a treated fiber tube within the porcelain fuse-holder, and is attached to the upper or closed end of the fuse-holder by means of an adjustable clamp and to the lower or open end of the fuse-holder by a circular ring, which, when tightened, holds the fuse firmly in place without a tendency to shear off when the fuse blows. The explosion consequent upon the expansion of the gases formed effectively expels the arc through the open end of the holder downward and instantaneously opens the circuit. New fuses may be inserted readily.

This combined fuse and disconnecting switch, made by the General Electric Co., Schenectady, and known as the type TD-127, is made in single-pole units for vertical mounting on flat surfaces. It can be obtained for use at 15,000, 22,000, 35,000 and 45,000 volts. The maximum current rating is 50 amperes. No special arrangements are needed for mounting. The supporting bracket is bolted to the crossarm.

Powder-Packing Plant Details.

Interesting details have been learned regarding the \$3,000,000 powder-packing plant recently announced as to be built at Seven Pines by the War Department. They refer to plans for 140 packing units to be constructed, in addition to warehouses, with office buildings and dwellings for employees. The plant will be located on a site lying between Fort Lee and Seven Pines, six miles east of Richmond, Va., 4000 men to be employed in its construction, with a view to completion within six months. Preliminary improvements have been completed and active construction will begin this week by the contractor, the Foundation Company of New York.

This important addition to the Government's ammunition facilities will extend a distance of five miles between Fort Lee and Seven Pines, equipped for packing explosives in silk bags of proper size for the charge desired. There will be 3500 employees required to operate the plant to full capacity, and the 140 units will be built separately a sufficient distance apart to minimize the danger from explosion, each unit to be connected by a modern highway system. Forty miles of railway track will be laid and electric motor trucks will be used within the plant boundaries. A site of 1740 acres will be utilized along the Chesapeake & Ohio and Southern railways. The Foundation Company has the general construction contract, and E. I. du Pont de Nemours & Co. of Wilmington, Del., will operate the plant for the Government.

Construction Department

IN ORDER TO FOLLOW UP

Properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be written on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the post-office will generally be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur, as our reports are often published before new companies are known and before they have any established office for the receipt of mail.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

DAILY BULLETIN

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

BRIDGES, CULVERTS, VIADUCTS

Ala., Killen.—Lauderdale County Comms., Florence, Ala., will construct 100-ft. reinforced concrete bridge across Six Mile Creek; bids until June 10; M. S. Bingham, County Highway Engr. (See Machinery Wanted—Bridge Construction.)

Fla., Bradentown.—City voted \$45,000 bonds to construct its portion of bridge across Manatee River, connecting Bradentown and Palmetto; wood construction; length, 1 mi.; width, 18 ft.; 2-leaf bascule steel draw span with 75-ft. openings; cost \$60,000; city of Palmetto voted May 7 on \$15,000 bonds; Harry Wadham, Commr. Public Works, Bradentown; L. G. Wingate, Commr. Public Works, Palmetto. (Lately noted inviting bids.)

Fla., Miami.—City votes June 26 on \$30,000 bonds toward construction of bridge over Miami River at Ave. D and \$10,000 for bridge over Miami River at 12th St.; lately noted as contemplated. Address City Engr. Murray. (See Sewer Construction.)

La., New Orleans.—Comms. of Port, Devereaux O'Reilly, Engr. of Dock Board, will build 3 large bridges across proposed industrial canal; bascule type; for railway, vehicle and pedestrian traffic.

Md., Emmitsburg.—Frederick County Commissioners, Frederick, and Carroll County Comms., Martin D. Hess, Treas., Westminster, Md., will jointly construct bridge over Monocacy River at Shoemaker's Ford near Emmitsburg; length, 200 ft.; Frederick County Comms. receive bids until May 31.

Miss., Gulfport.—Harrison County Comms. at Gulfport, Hancock County Comms. at Bay St. Louis are proceeding with plans for construction of bridge across Bay St. Louis; preliminary survey and cost estimate is being made by State Highway Dept., Jackson, Miss., which dept. will supervise construction; Xavier A. Kramer, Magnolia, Miss., State Highway Engr. (Noted in March.)

Mo., St. Louis.—Best-Clymer Mfg. Co., Virginia and David Sts., let contract H. O. Hirsch, Wainwright Bldg., St. Louis, to erect addition; 3 stories; 28x104 ft. and 50x84 ft.; cost \$40,000. (Lately noted.)

N. C., La Grange.—Lenoir County Comms., C. W. Pridgen, Clerk, will erect steel bridge across Bear Creek; length 75 ft.; 16 ft. roadway; concrete abutments; open bids June 3. (See Machinery Wanted—Bridge Construction.)

Ky., Haddix.—Breathitt County Fiscal Court, J. Wise Hagins, Judge, Jackson, Ky., will take down and re-erect steel bridge; receives bids May 20. (See Machinery Wanted—Bridge Construction.)

Tenn., Hohenwald.—Lewis County Highway Comms., Edwin Gallaher, Secy., rejected bids on 2 steel bridges across Buffalo River and 1 concrete bridge over Swan Creek; asks new bids for May 31. (See Machinery Wanted—Bridge Construction.)

Tex., Athens.—J. B. Henry will rebuild pea-processing plant reported burned at loss of \$15,000.

Tex., Beaumont.—Kansas City Southern Ry., J. M. Weir, Ch. Engr., Kansas City, Mo., contemplates installing electrical equipment to operate drawbridge across Nueces River in Beaumont.

CANNING AND PACKING PLANTS

Fla., Florida City.—De Berry Bros. plan to establish cannery.

La., New Orleans.—Ames Farm Land Co., Chas. D. O'Connor, Pres., plans to establish cannery and dehydrating plant in connection with development of 500 acres for truck farming. (See Land Developments.)

Miss., Laurel.—Deblieux & Mays Co., New Orleans, will establish \$20,000 plant for canning vegetables. (Lately noted.)

Tenn., Waverly.—Duck River Provision & Packing Co., capital \$150,000, inceptd. by W. D. King, J. E. Sullivan, J. L. Haston and others.

Va., Richmond.—Granville G. Valentine and others will remodel fruit and vegetable market at 6th and Market Sts.; install dehydrating plant for fruits, vegetables and probably meat.

W. Va., Huntington.—Huntington Meat Co., capital \$25,000, inceptd. by Sam G. Wright, C. A. Allen, T. C. Thomas and others.

CLAYWORKING PLANTS

Ark., Glenwood.—Brick, etc.—P. W. Hampton is interested in plan to establish brick, tile and pottery plant and ice factory.

COAL MINES AND COKE OVENS

Ala., Dora.—May & Phillips Coal Co. organized; John D. Phillips, Pres.; F. May, V.-P.; G. May, Secy.-Treas.; develop 40 acres; 1 car daily capacity. (Lately noted inceptd.)

Kentucky.—Sullivan Pond Creek Co., capital \$500,000, inceptd. by J. C. Sullivan, L. R. Taylor, J. B. Frank and others, all of Tralee, W. Va.

Ky., Harlan County.—Alabama Fuel & Iron Co., Birmingham, Ala., purchased 1725 acres coal land in Harlan district and plans opening mines.

Ky., Kittle Island.—Pickering Branch Coal Co., capital \$15,000, inceptd. by J. A. Nield, L. R. Reams and John M. Lock.

Ky., Layman.—Layman & Calloway Coal Co., capital \$10,000, inceptd. by J. M. Saylor, W. C. Hopkins, J. J. Belcher and H. M. Osborne.

Ky., Madisonville.—Virginia Coal & Oil Co., capital \$100,000, inceptd. by Emanuel Holles, Wm. O. Brothers, both of Chicago, Ill.; John E. McGrew, Madisonville.

Ky., Middlesboro.—W. E. Garrett Coal Co. increased capital from \$6000 to \$24,000.

Ky., Madisonville.—O. & R. Coal Co., organized; Jas. D. Overall, Pres.; J. B. Ramsey, Secy.-Treas. and Mgr.

Ky., Middlesboro.—Consumers Fuel Co., capital \$30,000, inceptd. by H. A. McCamy, W. E. Frazer and T. G. Anderson.

Ky., Wilhurst.—Wilhurst Coal Co. organized; J. C. Hurst, Pres.; Ray Williams, V.-P.; Henry L. Spencer, Secy.-Treas. and Mgr.; develop 217 acres; daily output 1 to 3 cars. (Lately noted inceptd., \$20,000 capital.)

Ky., Willard.—Little Ford Coal Co., capital \$75,000, inceptd. by R. Schaub, W. W. Green and Robt. Gunning.

Ky., Pineville.—Kentonia Coal Sales Corp. increased capital from \$15,000 to \$100,000.

Ky., Shamrock.—Long Branch Coal Co., capital \$15,000, inceptd. by Wm. Givens, W. K. Evans and R. Lee Givens.

Ky., Williamsburg.—Star Gem Coal Co., capital \$1000, inceptd. by Geo. T. Vaughan, Robt. H. Davis and Mary E. Vaughan.

Okla., Henryetta.—Blackstone Consolidated Coal Co., Okmulgee, Okla., organized; advises Manufacturers Record: Harlan Read, Pres.-Treas.; W. H. Wigton, V.-P. and Mgr.; L. L. Cowper, Secy.; develop 3000 acres; estimated daily output 2000 tons; machinery partially contracted. (See Machinery Wanted—Motors; Crushers.)

Okla., McAlester.—Dundee Coal Co., capital \$12,500, inceptd. by W. E. Beaty, Jackman A. Gill and G. W. Barr.

Okla., Tulsa.—Big Four Coal Co., capital \$25,000, inceptd. by J. J. Lucas, W. T. Haines and D. G. Elliott.

Tenn., Harriman.—Big Bend Coal Co., organized; L. O. Scott, Pres.; Arthur W. Evans, Mgr.; develop 500 acres; daily capacity 150 tons. (See Machinery Wanted—Cars; Rail; Engine.)

Tex., Greenville.—Greenville Lignite Co., capital \$30,000, inceptd. by L. N. Byrd, S. B. Brooks and G. M. Hodges.

Va., Honaker.—Russell Coal Corp. increased capital from \$10,000 to \$25,000.

Va., Keokee.—Mohawk Coal Mining Co., inceptd.; capital \$50,000; H. P. May, Pres.; Lella Yearly, Secy.; both of Norton, Va.

Va., Norton.—Daab Coal Corp., capital \$10,000, chartered; Henry Daab, Pres.; J. W. Taylor, Secy.

Va., Richlands.—Richlands Coal Corp., 614 McBain Bldg., Roanoke, Va., A. B. Adams, Rocky Mount, Va., Pres.-Treas., advises Manufacturers Record: Organized to develop 450 acres in fee and several hundred acres leased coal lands in Tazewell County, on Big Creek branch of Norfolk & Western Ry.; present plans contemplate (minimum) output 600 tons daily; build railroad siding to property, loading with tippie from tramway. (In March, noted increasing capital from \$50,000 to \$300,000.)

W. Va., Armor.—Crescent Mining Co., capital \$25,000, inceptd. by J. H. Brumfield and T. A. Shewey of Armor, J. C. Haley of Roanoke, Va., and others.

W. Va., Charleston.—New York capitalists connected with National City Bank of New York arranged to purchase Josiah V. Thompson (Uniontown, Pa.) bituminous coal fields in Western Pennsylvania and West Virginia; properties include 134,000 acres West Virginia land and 141,000 acres in Greene, Washington and Fayette Counties, Pennsylvania; purchase price reported as about \$25,000,000; purchase must have Fed-

eral approval; buyers expended more than \$200,000 for investigations; plan organizing company to develop; Asst. Cashier National City Bank advises Manufacturers Record: Unable to give any definite information at this time.

W. Va., Clarksburg.—Washington Irving Coal Co., capital \$100,000, inceptd. by W. I. Booth, C. L. Curry, Harry W. Sheets and others.

W. Va., Fairmont.—Fairmont By-Product Corp. chartered with \$500,000 authorized capital by O. F. Lough, C. E. Smith, E. B. Moore and others; ultimate plans contemplate \$5,500,000 investment to build 110 by-product coke ovens and \$750,000 to build industrial city for employees; manufacture coke and by-product chemicals.

W. Va., Hartford.—Mason Coal & Chemical Co., A. D. Williams, Pres., Morgantown, W. Va., will increase coal production; New York office at 19 W. 44th St.

W. Va., Huntington.—Tri-Vein Coal Co. organized with A. J. Watts, Pres.; L. D. Adkins, V.-P.; C. M. Morrison, Secy.-Treas.; develop 700 acres coal land in Wayne County.

W. Va., Perryville.—Liberty Collieries Co., 1201 Union Bldg., Charleston, W. Va., has not organized; M. E. Moore, Acting Secy.; Herbert Hannigan, Acting Mgr.; develop coal lands; install shaft mining equipment; soon decide machinery requirements; estimated daily capacity 600 or more tons.

CONCRETE AND CEMENT PLANTS

Ala., Demopolis.—Portland Cement.—Demopolis Portland Cement Co. will increase capital from \$400,000 to \$1,400,000.

Okla., Tulsa.—Concrete Products.—Tulsa Concrete Co., capital \$10,000, inceptd. by O. A. Sexton and others.

COTTON COMPRESSES AND GINS

Ark., Batesville.—Geo. Killman will rebuild cotton gin and grist mill reported burned at \$2500 loss.

Ark., Branch.—M. L. Branch & Co. will improve cotton gin and grist mill, including addition of gasoline power.

Ark., Tucker.—Sam C. Alexander (of S. C. Alexander & Co., Pine Bluff, Ark.) will build cotton gin on 600-acre plantation at Tucker; Gullett type; cost \$5000.

Okla., Lexington.—Lexington Gin Co. will erect building.

Okla., Sulphur.—John Hassen let contract to L. H. Frier to erect building replacing structure lately burned; fireproof; install motor power driven 8-stand equipment; construction includes yards and houses, seed and storage cotton houses.

Tex., Bangs.—Martin & Davis will rebuild cotton gin reported burned at loss of \$15,000.

Tex., Lufkin.—Lufkin Cotton Press Co., capital \$30,000, inceptd. by Wm. M. Glenn, M. R. Thompson and J. F. Christian.

Tex., Paris.—Farmers' Union Gin Co. increased capital from \$12,600 to \$17,000.

Tex., San Antonio.—Alamo Gin Co., capital \$5000, inceptd. by O. L. Taylor, D. S. Cassin and S. G. Newton, Jr.

COTTONSEED-OIL MILLS

Ark., Little Rock.—Buckeye Oil Mill will rebuild burned plant; fireproof; reinforced concrete.

Ga., Hawkinsville.—Hawkinsville Mfg. Co., L. A. Wilson interested, capital \$75,000, incorporated; succeeds Thompson Oil Mill Co.; capacity 48 tons cottonseed per 24 hrs.

Va., Relee.—Oil Refinery.—Capitol Refining Co. increased capital from \$1,000,000 to \$1,250,000.

DRAINAGE SYSTEMS

Ark., Walnut Ridge.—Village Creek Drainage Dist. authorized; Dud Bassett, Chrmn. Comrs.

La., Gretna.—City will construct drainage canal to extend from Monroe St. to Lafayette Ave. at lower end and from Peter's or Marrero line to Lafayette Ave. at upper end to drain eventually into proposed Lafayette Ave. canal; will invite bids. Chas. Glebbe, Mayor.

S. C., Foreston.—Clarendon County Drainage Dist., Courtney Campbell, Foreston, interested, asks bids on 200,000 yds. excava-

tion; both floating dredge and land machine work. Lately noted. (See Machinery Wanted—Drainage.)

ELECTRIC PLANTS

Fla., Florida City.—De Berry Bros. propose to establish electric light plant.

N. C., Gibsonville.—Gibsonville Milling Co. plans to construct electric-power system from Summers Mill, 5½ below Gibsonville, to Gibsonville.

Okla., Prague.—City will build 22-mi. transmission line south and west to connect with transmission system of Oklahoma Power & Transmission Co.; also construct outdoor sub-station to include three 75 K. V. A., 33,000 to 2300-volt, 60-cycle, single-phase transformers; two 500 G. P. M., 230-ft. lift, direct-connected, motor-driven, centrifugal pumps, air compressor, etc.; bids until May 16; plans and specifications, etc., upon deposit of \$25 certified check; Roy Parks, Mayor. (See Machinery Wanted—Electrical Machinery, etc.)

Okla., Yale.—City is considering \$300,000 bond issue to construct electric light system and water works. Address The Mayor.

FERTILIZER FACTORIES

S. C., Estill.—Estill Enterprise & Fertilizer Co. organized; M. H. O'Neal, Pres.; A. W. Lawton, V.-P.; B. J. Peebles, Secy.-Mgr.; erect mill construction buildings, cost \$5000; date of opening building proposals not set; install fertilizer mixer, cotton gin, ice factory and electric-light plant; operate with oil engine; machinery partially purchased. Lately noted inceptd., capital \$50,000. (See Mch'y. Wntd.—Cotton Gin Machinery, etc.; Fertilizer Machinery; Electric-light Equipment; Ice Machinery.)

FLOUR, FEED AND MEAL MILLS

Ark., Amity.—T. E. Teague will rebuild grist mill reported burned at loss of \$4000.

Ark., Batesville.—Geo. Killman will rebuild grist mill and cotton gin reported burned at \$2500 loss.

Fla., Green Cove Springs.—N. M. Coffey, of Frankfort, Ky., will build mill to grind corn into meal and grits, grind velvet beans and probably peanuts for meal and flour; also clean and polish rice.

Miss., Winona.—Walter H. Witty organizing company to manufacture corn meal, mixed feed and chops, 1000 bushels daily; erect 60x100-ft. ordinary-construction building. Lately noted. (See Machinery Wanted—Grist and Feed Milling Machinery.)

N. C., Goldsboro.—Mutual Milling Co., capital \$25,000, inceptd. by Chas. M. Buie and others.

N. C., Elizabeth City.—Southern Roller, Stave & Heading Co. will rebuild plant reported burned.

Tenn., Chattanooga.—Southern States Products Co., capital \$10,000, inceptd. by L. A. Craig, W. A. Cockrum, C. G. Reneger and others; install popcorn plant.

Tex., Amarillo.—Cattlemen's Cottonseed Cake Co., capital \$10,000, inceptd. by J. N. Beasley, Ray Wheatley and C. A. Fisk.

FOUNDRY AND MACHINE PLANTS

Ala., Mobile.—Machine Shop.—Machine Repair Co., capital \$25,000, inceptd. by M. Benj. Scholtes, E. V. Pickley and Monroe Nelson; acquired Modern Welding & Blacksmithing Co. of Mobile and Pascagoula, Miss.

Mo., Kansas City.—Heating Apparatus.—A. Holtman Heating Co. will rebuild burned plant at 18th and Holmes Sts.; 2 stories; reinforced concrete; 125x110 ft.; cost \$90,000; Smith, Rea & Lovitt, Archts., Kansas City; Swenson Construction Co., Contr., Kansas City.

Mo., St. Joseph.—Foundry.—Berry Foundry & Steel Co., S. 5th St., let contract J. W. Lehr Construction Co., 1712 Fred Ave., St. Louis, to erect plant; main building 50x300 ft.; also 6 pattern shops, blacksmith shop and 3 pattern-storage houses.

N. C., Charlotte.—Machine Shop.—B. J. Brown will erect machine shop at 50 W. Fourth St.; cost \$3000; C. C. Hook, Archt.; R. L. Goode, Contr.; both of Charlotte.

S. C., Sumter.—Machinery.—Carolina Machinery Co. increased capital from \$30,000 to \$50,000.

Tex., Dallas.—Plows.—Southern Plow Co. increased capital from \$30,000 to \$60,000.

Tex., Houston.—Machine Shops.—Lucy Mfg. Co. will erect machine shops at Leona and Carr Sts.; cost \$2150; W. L. Gayon, Contr., Houston.

Tex., Wichita Falls.—Oil-well Machinery.—Baxter Oil Well Supply Co., Houston, will build plant to manufacture oil-well machinery and supplies; has equipment.

W. Va., Morgantown.—Mine Cars.—Morgantown Mine Car Co., capital \$100,000, inceptd. by H. E. Greer, Everhart Blierer, Joseph Blierer and others.

GAS AND OIL ENTERPRISES

Ala., Montgomery.—Oil-filling Station.—Gulf Refinery Co. leased 50x100-ft. site; will erect No. 1 filling station.

Ky., Lexington.—Liberty Oil, Gas & Mfg. Co., inceptd. by J. S. Braden of Lexington, R. M. Browne of Wheeling, W. Va.; Jas. H. Dugan of Philadelphia, Pa., and others; capital \$100,000.

Ky., Louisville.—Woolfolk Oil Co., capital \$50,000, inceptd. by J. A. Woolfolk, V. J. Bulleit and A. W. Finley.

Ky., Mt. Sterling.—Big Bird Oil & Gas Co., capital \$30,000, inceptd. by John A. Judy, John G. Winn and C. W. Kirkpatrick.

Kentucky.—Midass Oil & Gas Co., capital \$350,000, inceptd. by H. T. Lovett, Paul W. Scott, M. A. Simms and others, all of Huntington, W. Va.; develop oil wells in Kentucky.

Ky., Carlisle.—Carlisle Oil & Development Co., capital \$15,000, inceptd. by T. L. Clark, Minor Judge, W. F. Hume and others.

Ky., Winchester.—Oil Refinery.—Southern Refinery Co., capital \$250,000, organized by J. H. Holbrook, of Louisville, and others; build refinery with daily capacity 1000 bbls.; 75 tank cars to handle oil from fields to refinery.

THE OFFICIAL PROPOSAL ADVERTISEMENTS

Appear This Week On Page 96

Notices of bond sales, construction and improvement contracts to be let, equipment and supplies to be purchased, franchises offered, etc., inserted in this department bring bids from the most important bond buyers, investors, financial institutions, contractors, engineers, architects, manufacturers, and supply houses throughout the country.

Rate 25 cents per line per insertion.

The PROPOSAL department goes to press 5 P. M. Tuesday for the issue of the following Thursday. If you cannot mail advertisement in time for any particular issue, please wire copy by day letter.

Send for booklet of testimonial letters from public officials who have used the PROPOSAL department of the Manufacturers Record, for bond sales, construction work, etc.

Okla., Allen.—Adeline Oil Co., capital \$100,000, inceptd. by C. M. Means and A. A. Caldwell and W. T. Anglin, of Holdenville, Okla.

Okla., Ardmore.—Dearborn Oil Co., capital \$30,000, inceptd. by A. F. Ferris of Wirt, Okla., F. W. Merrick of Oak Park, Ill., and others.

Okla., Blackwell.—World Petroleum Co., capital \$10,000, inceptd. by Frank Palmer, Brice Patrick and Ida Palmer.

Okla., Chickasha.—Chickasha Mutual Oil & Gas Co., capital \$100,000, inceptd. by Dud Roland, Roy C. Smith and T. H. Dwyer.

Okla., Chickasha.—Oil Refinery.—Chickasha Refining Co., Ed F. Johns, Pres., 306 First National Bank Bldg., will build oil refinery with initial daily capacity 1000 bbls.; cost \$100,000. (Lately noted organized.)

Okla., Claremore.—St. Bernard Oil Co., capital \$50,000, inceptd. by J. H. Bernard, J. F. Flippin and K. D. Bernard.

Okla., Comanche.—Woolsey Oil & Gas Co., capital \$50,000, inceptd. by Wm. G. Enloe and others.

Okla., Duncan.—Fair Oil & Royalty Co., capital \$250,000, inceptd. by J. W. Marshall, J. W. Paramore and J. M. Sandlin.

Okla., Enid.—Barnes-Pool Oil & Gas Co., capital \$150,000, inceptd. by L. F. Messman and others.

Okla., Garber.—Garber Gas & Fuel Co., capital \$50,000, inceptd. by J. B. Morgan, H. Ebert and W. S. Wilcox; all of St. George, Okla.

Okla., Kingfisher.—Oil Refinery.—Newer Oil & Refining Co. inceptd. with \$100,000 capital by George Newer, J. W. Newer, A. Zalaback.

Okla., Lawton.—Oil Refinery.—Comanche Refining Co. increased capital from \$65,000 to \$200,000.

Okla., Marmarec.—Lake Marmarec Oil & Gas Co. inceptd. with \$150,000 capital by G. C. Thomas, C. A. Fluty and H. A. Martin.

Okla., Marlow.—Dependable Oil & Gas Co., capital \$98,000, inceptd. by J. T. Thompson and others.

Okla., Okeene.—Home Oil Co., capital \$10,000, inceptd. by H. Buckingham and others.

Okla., Okmulgee.—Oil Pipe Line.—Okmulgee Producing & Refining Co. will build oil pipe line to refinery in West Tulsa.

Okla., Okmulgee.—McCulloch Oil & Gas Co., capital \$64,000, inceptd. by J. W. McCulloch, A. R. Winfrey and T. H. McBrayer.

Okla., Oklahoma City.—Ingram Oil Corp., capital \$100,000, inceptd. by W. R. Ingram, Stanley Lewis and W. E. Johnson.

Okla., Oklahoma City.—United American Petroleum Co., capital \$500,000, inceptd. by J. B. Aiken, W. A. Darby, L. I. Lyon.

Okla., Oklahoma City.—Guaranty Oil Producing Co., capital \$500,000, inceptd. by J. B. Aiken, J. H. Montgomery, W. A. Darby.

Okla., Oklahoma City.—Mid-State Petroleum Co., capital \$500,000, inceptd. by Minor M. Smith, Geo. C. Summy and Frank D. Northup.

Okla., Oklahoma City.—Capital Petroleum Co. inceptd. with \$75,000 capital by R. L. Garrett, A. H. Cuttrel and Chas. H. Garnett.

Okla., Perry.—Franco-American Co., capital \$300,000, inceptd. by Robt. Oliveau, A. J. Murry and Henry B. Belmont, all of Tulsa, Okla.

Okla., Tulsa.—Oil Refinery.—Golden Glow Refining Co. inceptd. with \$50,000 capital by J. M. Chandler, W. A. Moore, both of Tulsa, and J. A. Boyd, Sapulpa, Okla.

Okla., Tulsa.—P. & R. Oil Co. inceptd. with \$75,000 capital by W. L. Koch, Mildred M.

struction June 10. (Lately noted organized, W. W. Alexander, Pres., Ennis, Tex.; to build oil refinery; initial construction, 2 units of 500 bbls. daily capacity.)

Va., Richmond.—Commercial Oil.—Tret-o-Lite Corp., capital \$20,000, chartered; Thos. H. Gay, Pres.; Richmond; Stephen A. Van Ness, V.-P.; Robert N. Chambers, Secy.-Treas.; both of New York; render natural oils suitable for commercial use.

ICE AND COLD-STORAGE PLANTS

Ark., Glenwood.—P. W. Hampton is interested in plan to establish ice factory and brick, tile and pottery plant.

Ga., Macon.—War Dept., Washington, D. C., authorized erection of ice and cold-storage plant at Camp Wheeler; 52x101 ft.; cost \$40,000; Maj. A. C. Doyle, Constr. Quartermaster, Camp Wheeler. (Lately noted.)

Mo., Annapolis.—Parlett & Parlett will rebuild burned ice plant.

Mo., Kirksville.—Adair County Light, Power & Ice Co. will enlarge and improve ice factory.

Mo., St. Joseph.—St. Joseph Warehouse & Cold Storage Co. will erect addition; 200x80 ft.; first floor of new building and 100 ft. of present structure to be equipped for cold storage; double present storage capacity of 175 cars; cost of addition \$125,000.

N. C., Charlotte.—War Dept., Washington, D. C., authorized construction of ice and refrigerating plant at quartermaster's depot, Camp Greene; Maj. Clarence H. Green, Constr. Quartermaster, Camp Greene.

Va., Newport News.—Distilled Ice Co. contemplates erecting ice storage-house; 44x36 ft.

IRON AND STEEL PLANTS

Va., Glen Wilton.—Iron Furnace.—Princess Iron Corp. organized under ownership (succeeding Matthew Addy Co.) of Frazier & Co., Broad and Sansom Sts., Philadelphia, Pa., and associates; Chas. E. Loxley, Secy.-Treas.; Banks Hudson, Gen. Mgr.; properties include Princess Furnace Co., Callie Mining Co., and Circle Ore Co., in Botetourt County, on Chesapeake & Ohio Ry.; complete operating unit; 1466 acres land; blast furnace with daily capacity 100 tons high silicon pig iron; 2 brown hematite iron ore mines; 40 acres limestone, etc.; capitalization \$3,300,000; divided into \$1,500,000 common stock, \$1,000,000 preferred stock and \$800,000 bonds. (Lately noted chartered, etc.)

LAND DEVELOPMENTS

Ala., Birmingham.—Roebuck Springs Land Co., capital \$2000, inceptd.; W. W. Crawford, Pres.; E. G. Chandler, V.-P.; W. W. Crawford, Jr., Secy.-Treas.

Ala., Birmingham.—Roebuck Springs Land Co., capital \$2000, inceptd.; W. W. Crawford, Pres.; E. G. Chandler, V.-P.; W. W. Crawford, Jr., Secy.-Treas.

Ark., Hot Springs.—National Park Service of Interior Dept., Washington, Stephen I. Mather, Director, has preliminary plans and drawings by Mann & Stern, Little Rock, Ark., for improvements to U. S. Reservation, which include roads and bridges, storm and sanitary sewers, buildings, greenhouses, monuments, retaining walls, and landscape work, in connection with other improvements, total cost \$2,000,000. (See Government and State, Buildings Proposed.)

Florida.—Florida Grove Lands Co., capital \$50,000, inceptd. by Wm. L. Branch, Wm. B. Mathews, Paul J. Newlon, all of Charleston, W. Va., and others.

Fla., Lauderdale.—City, Geo. W. Hall, Clerk, voted \$35,000 bonds for park and golf course. (Noted in April.)

Fla., Tavares.—Osceola Farm Co. organized with G. W. Holmes, Pres.; H. C. Duncan, V.-P. and Secy.; B. A. Cassaday, Mgr. and Treas.; develop 370 acres in Lake County; 75 acres of this in citrus groves; 80, corn and hay; 30, velvet beans; also grow sugar-cane and chufas; 150 head hogs. Lately noted inceptd., \$10,000 capital. (See Machinery Wanted—Plows.)

La., Lake Charles.—Southern Plantation Co., capital \$150,000, chartered; W. B. Conover, Pres.; Jas. Gardiner, V.-P.; John R. Green, Secy.-Treas.

La., New Orleans.—Ames Farm Land Co. organized; Chas. D. O'Connor (Pres. American Laundry Co.), Pres.; A. Krauss (of Krauss Bros. Lumber Co.), V.-P.; Peter Jung, Sr. (Pres. Crescent Bed Co.), Treas.; Meyer Eiseman, Secy.; purchased Ames plantation, comprising 850 acres and fronting 650 ft. along Jefferson Parish side of river above Harvey's canal; develop and

divide into truck farms; plans to establish cannery, dehydrating plant and co-operative produce market.

Okla., Ardmore. — Greater Ardmore Co. incptd. with \$50,000 capital by I. M. Putnam, W. H. Phillips and H. H. Helm.

S. C., Columbia. — Douglas Memorial Cemetery Co., capital \$4000, incptd.; J. C. Townsend, Pres., Secy. and Treas.; J. W. Crews, V.-P.

Tex., Palacios. — Palacios Townsite Co., capital \$10,000, incptd. by H. B. Farwell, J. F. Barnett and P. F. Campbell.

Va., Norfolk. — Brandon Place Realty Corp., capital \$50,000, chartered; J. B. Morgan, Pres.; A. T. McDonald, Secy.

Va., Richmond. — Seven Pines Terrace Corp., capital \$25,000, chartered; E. H. Plummer, Pres.; Jas. T. Hill, Secy.

Va., Villamont. — Villamont Co-operative Community, main office Blue Ridge Springs (Villamont), and temporary office Roanoke, Va., incptd.; capital \$25,000; Walter J. Quick, Pres.; Jas. D. Johnston, V.-P.; W. O. Roberts, Secy.-Treas.; develop 1500 acres in Bedford County; orchard and truck farms and villa sites; has roads, parks, bungalows, hotels, etc.; expend \$5000 on improvements this year; all material on hand; local labor; W. L. Allen, Engr., Blue Ridge Springs, Villamont.

W. Va., Beckley. — West Virginia Farm Lands Co. incptd. by J. L. Hawley and others; capital \$50,000.

W. Va., Charleston. — Donald Land Co., National Bank Bldg., incptd. with \$50,000 capital by H. D. Rummel, J. F. Hudson, H. F. Rummel and others.

LUMBER MANUFACTURING

Ala., Mobile. — Marine Lumber Co. increased capital from \$7500 to \$50,000.

Ala., Tuscaloosa. — Rumley-Allison Lumber Co., capital \$100,000, incptd. by M. C. Rumley, R. A. Allison and Geo. F. Wood.

Ala., Tuscaloosa. — Hammond-Parke Lumber Co., capital \$25,000, incptd. by E. H. Hammond, Walter Parke and others.

Ark., Eureka Springs. — Granger-Kelly Lumber Co. will rebuild planing mill reported burned at loss of \$30,000.

Ark., Marianna. — B. L. Mallory and Claude Reeson, Memphis, Tenn., purchased 1600 acres Crittenden County timber land; will cut and ship logs to mill at Memphis, Indianapolis and Helena, Ark.; have 2 standard-gauge railway spurs into tract.

Ark., Round Pond. — Round Pond Lumber Co., capital \$7500, incptd.; Jno. R. Grobmyer, Pres.; Jno. I. Jones, V.-P.; Gazola Vaccaro, Secy.-Treas.

Ark., Turrell. — Memphis Band Mill Co., Memphis, Tenn., purchased hardwood stumpage on 1500-acre tract; oak, ash, cottonwood and gum; haul to Memphis, 20 mi., and manufacture into lumber.

Ga., Waycross. — Atlantic Coast Line R. R. let contract to Moore Dry Kiln Co., Jacksonville, Fla., for large dry kiln.

Miss., Hillsdale. — Southern Lumber & Timber Co., N. P. Hatten, Secy.-Treas., purchased 11,000 acres virgin long-leaf yellow pine timber lands adjoining present holdings; has mills.

Miss., Leakesville. — Bear Creek Lumber Co. will rebuild plant reported burned at loss of \$100,000.

N. C., James City. — Munger & Bennett, offices in Newbern, N. C., and Camden, N. J., will rebuild lumber plant reported burned at loss of \$20,000 to \$30,000.

N. C., Rocky Mount. — Atlantic Coast Line R. R. let contract to Moore Dry Kiln Co., Jacksonville, Fla., for large dry kilns.

Tenn., Knoxville. — Simmonds-Hall Lumber Co. incptd. by R. H. Simmonds, L. S. Hall, W. J. Oliver and others; capital \$50,000.

Tex., Conroe. — Morse-Johnson Lumber Co. increased capital from \$20,000 to \$25,000.

Tex., Houston. — Texas Lumber Co. increased capital from \$50,000 to \$150,000.

Va., Bristol. — Paxton Lumber Co. increased capital from \$25,000 to \$50,000.

W. Va., Huntington. — Tri-State Lumber & Stave Co., capital \$25,000, incptd. by H. D. McClintock, H. C. Walburn, R. D. Heinz and others.

METAL-WORKING PLANTS

Ala., Mobile. — Life Boats. — Mobile Steel Co., Eslava St. and Eslava Docks, will add metallic lifeboat factory to plant manufacturing sheet metal products; metal work in pres-

ent plant; erect building for wood work and assembling; purchased equipment.

Okla., Oilton. — Tanks. — Painter & Zigler Tank Co., capital \$5000, incptd. by H. M. Yates and John M. Zigler, Jr., both of Oilton, Okla., and Henry E. Zigler, of Cache, Okla.

MINING

Ala., Rockford. — Graphite. — A. S. Castellano purchased 120 acres graphite land and will install mill for development.

N. C., Neverson. — Granite. — Neverson Granite Co., 1107 Citizens National Bank Bldg., Raleigh, N. C., capital \$50,000, incptd.; E. C. Duncan, Pres.; W. H. Ragland, V.-P.; R. W. Kennison, Secy.; A. Wray White, Treas.; acquired Harris Quarries Co. plant.

Okla., Miami. — Wolverine Mining Co., capital \$100,000, incptd. by Vern E. Thompson of Miami, A. W. Taylor of Vinita, Okla., and others.

Okla., Nowata. — Lead and Zinc. — Ruby Jack Royalty Co., capital \$100,000, incptd. by J. A. Wright and others.

Okla., Oklahoma City. — War Brides Mining Co., capital \$150,000, incptd. by J. D. Moore, J. C. Willingham and others.

Okla., Shamrock. — Creek Mining Co., capital \$50,000, incptd. by L. O. Shannon, E. B. Ham and C. G. Seaton.

Okla., Tulsa. — Enterprise Mining & Development Co., capital \$100,000, incptd. by S. A. Boorstin, N. M. French and W. W. Hurst.

Okla., Vinita. — Peerless Mining Co. organized; J. E. King, Box 506, Vinita, Pres.-Mgr.; D. L. King, V.-P.; J. A. Miller, Secy.-Treas.; develop 410 acres. (Latest noted incptd., \$100,000 capital.)

Tenn., Cleveland. — Silica. — Cleveland Silica Co., capital \$30,000, incptd. by J. W. Bears, F. J. Fairweather, Chas. S. Mayfield and others.

Tenn., Mascot. — Lead and Zinc. — American Zinc, Lead & Smelting Co. plans additional mining developments; also may build smelters and install electrolytic process for securing zinc.

Va., Stanley. — Manganese. — Shenandoah Valley Manganese Corp. chartered; capital \$1,500,000; Geo. S. Davison, Pres.; Albert P. Meyer, Secy.; both of Pittsburgh, Pa.

W. Va., Hartford. — Salt. — Mason Coal & Chemical Co., A. D. Williams, Pres., Morgantown, W. Va., will increase salt production.

MISCELLANEOUS CONSTRUCTION

Md., Hagerstown. — Mausoleum. — Rose Hill Cemetery Co. has plans by Architect Lee for mausoleum in Rose Hill; granite, steel, marble and concrete; cathedral glass lights; 280 crypts.

Miss., Vicksburg. — Levee. — Third Mississippi River Dist., P. O. Box 404, will construct 460,000 cu. yds. levee work; bids until May 20. (See Machinery Wanted—Levee Construction.)

S. C., Charleston. — Government Piers, Terminals, etc. — War Dept., Washington, D. C., let contract to Mason & Hanger, Louisville, Ky., to build terminals and warehouses; plans include concrete piers and warehouses and ammunition depots, deepening channel to 40 ft. at low water from navy yard to sea and constructing 4,000,000 dry dock at navy yard; piers to front 3000 to 5000 ft., costing \$25,000. (Latest noted.)

S. C., Charleston. — Wharf and Trestle. — Bureau Yards and Docks, Navy Dept., Washington, D. C., will construct wharf and trestle at Navy Yard, Charleston, S. C.; cost \$15,000; bids until May 20. (See Machinery Wanted—Wharf and Trestle Construction.)

Tex., Houston. — Natatorium. — Houston Natatorium Co., capital \$10,000, incptd. by J. L. Tibbott, P. E. Barthold and C. J. Gerner.

Va., Newport News. — Dredging. — Bureau Yards and Docks, Navy Dept., Washington, D. C., let contract Norfolk Dredging Co., 303 Water St., Norfolk, for dredging at Newport News and Lambert's Point.

Va., Portsmouth. — Radial Block Chimney. — Bureau Yards and Docks, Navy Dept., Washington, D. C., will construct radial block chimney at Norfolk Navy Yard; cost \$10,000; bids until May 20. (See Machinery Wanted—Chimney Construction.)

MISCELLANEOUS ENTERPRISES

Ala., Birmingham. — Optical. — Mully Optical Co., capital \$3000, incptd.; F. A. Meulendyk, Pres.-Treas.; Carl D. Coker, V.-P.; Sarah Meulendyk, Secy.

Ala., Tuscaloosa. — Transfer. — Tuscaloosa

Transfer Co., capital \$3000, incptd. by E. N. C. Snow, L. J. Snow and H. J. Pearson.

Ark., Glenwood. — Publishing. — P. W. Hampton will install printing plant.

Ga., Dublin. — Navigation. — Farmers Navigation Co., capital \$10,000, incptd. by W. A. Branch, of Glenwood, Ga., and others.

Ga., LaGrange. — Laundry. — Elm City Cotton Mills let contract to LaGrange Lumber & Supply Co., LaGrange, to erect (electric) laundry building; brick construction.

Ga., West Point. — Publishing. — West Point Publishing Co., capital \$10,000, incptd. by W. C. Lanier, Geo. S. Cobb, W. H. Huff and others; install printing plant.

Ky., Hazard. — Engineering. — Industrial Engineering Corp., capital \$25,000, chartered by C. E. Carlin, R. L. Cornell and R. D. Baker.

La., New Orleans. — Industrial Canal. — Commrs. of Port, Devereaux O'Reilly, Engr. of Dock Board, have plans and specifications for constructing locks to connect Mississippi River and proposed industrial canal; locks 700 ft. wide with minimum depth of 25 ft. over sill; handle vessels up to 600 ft. long; location ½ mi. from river front; Geo. W. Goethals & Co., Engrs., New York. (Canal cost lately noted estimated at \$2,600,000.)

Mo., St. Louis. — Dairy. — War Dept., Washington, D. C., will enlarge dairy at Jefferson Barracks; install additional machinery; erect building 300 ft. long to house 80 cows. Capt. C. N. Thiele, Mess Officer.

N. C., Badin. — Rock Crusher, etc. — Hardaway Contracting Co., Columbus, Ga., will rebuild rock-crushing and concrete-mixing plant reported burned at loss of \$60,000.

N. C., Reidsville. — Printing. — Review Co. will erect printing plant.

Okla., Ardmore. — Incinerator. — City, W. R. Roberts, Mayor, voted bonds for incinerating plant. (Amount noted in April as \$15,000.)

Okla., Inola. — Grain Elevator. — Inola Farm Elevator Co., capital \$10,000, incptd. by N. J. Hiebert, H. C. Ruppel and F. M. Courtney.

Okla., Miami. — Printing. — O. T. Dixon Printing & Stationery Co., capital \$20,000, incptd. by O. T. Dixon and others.

Okla., Muskogee. — Engraving. — Crescent Engraving Co., capital \$6000, incptd. by C. A. Looney, S. B. Hudson and Harry V. Bowman.

Okla., Nash. — Grain Elevator. — Home Grain Co., capital \$10,000, incptd. by J. J. Gibson and others.

Okla., Tulsa. — Pipe and Supplies. — Phoenix Pipe & Supply Co., capital \$25,000, incptd. by Mayer Y. Blumenfeld, M. A. Isaacs and A. Robinson.

S. C., Charleston. — Livestock. — Pine Grove Livestock Co., capital \$70,000, incptd. by E. W. Durant, Jr., E. H. Dennings and A. N. Hills.

S. C., Greenville. — Floral. — Mauldin Floral Co., capital \$20,000, incptd.; Thos. S. Mauldin, Pres.-Treas.; Charles F. Hard, V.-P. and Secy.

S. C., Meriwether. — Ferry. — Middleton Ferry, capital \$2000, incptd. by L. C. Rich and Marie R. Middleton.

S. C., Spartanburg. — Laundry. — Troy Laundry organized; Wm. Poor, Pres.; T. K. Hudgens, Secy.-Mgr.; opened building bids in April; install machinery, cost \$6000 to \$10,000. (Noted incptd. in March, capital \$10,000.)

Tex., San Antonio. — Laundry. — Peerless Laundry Co., capital \$13,000, incptd. by G. R. McLellan, W. B. Cornett and F. G. Sanders.

Tex., San Antonio. — Dry Cleaning. — War Dept., Washington, D. C., plans to establish dry-cleaning plant for blankets, clothing, etc.; H. L. Lang of Washington (now registered at Gunter Hotel, San Antonio), representing War Dept., is making investigations; Col. D. E. McCarthy, Southern Dept. Quartermaster, San Antonio.

Tex., San Benito. — Cattle. — Liberty Development & Cattle Co., capital \$10,000, incptd. by C. D. Cleveland, W. H. Abercrombie and O. L. Wilkins.

Va., Norfolk. — Southern Sanitary Co., capital \$25,000, incptd.; J. R. Skinner, Pres.; W. C. Lam, Secy.

Va., Norfolk. — Lighterage. — Tidewater Lighterage Co., 710 Citizens' Bank Bldg., capital \$25,000, incptd.; Wm. A. Keefe, Pres.; J. G. O'Neill, V.-P.; H. Lowry, Secy.; J. G. Tyler, Mgr.; install hoists and saws. (See Machinery Wanted—Hoists; Boats.)

W. Va., Morgantown. — Electrical. — Electrical Equipment Co., capital \$25,000, incptd. by Arthur A. Hall, Lester R. Gehagen, Earl F. Hall and others.

MISCELLANEOUS FACTORIES

Ark., Camden. — Bottling. — Coca Cola Bottling Works will erect plant.

Ark., Fort Smith. — Overalls, etc. — Fort Smith Garment Co., capital \$100,000, incptd.; J. A. Leininger, Pres.; Sam Harper, V.-P.; R. H. Clinehens, Secy.; I. H. Nakdinen, Treas.

Ark., Pine Bluff. — Insecticide. — J. E. Sullivan, G. W. Gray and John F. Sennett organized company to manufacture liquid to destroy boll-weevil, etc.

Ark., Pine Bluff. — Electric Batteries. — Pine Bluff Battery Co., capital \$10,000, incptd. by Gordon M. Rudd, H. A. Techumo and R. G. Craig.

Fla., Fellsmere. — Brooms. — Fellsmere Broom & Fibre Co., Walter Duncan, Pres., will install broom machinery, cost \$3000; daily capacity 50 doz. palmetto brooms for street, warehouse and house use. (Latest noted organized, etc.)

Kentucky. — Carbon. — Gasto-Carbon Mfg. Co., capital \$50,000, incptd. by H. T. Lovett, Paul W. Scott, M. A. Simms and others; all of Huntington, W. Va.; establish plant in Kentucky.

Ky., Louisville. — Beverage. — Frozenpure Company, capital \$60,000, incptd. by Phil Hollenbach, Louis J. Hollenbach and Ed. Oesterritter.

Ky., Louisville. — Distillery. — Kentucky Distillery & Warehouse Co. will build molasses vat at Hamilton and Gregory Sts.; cost \$11,725.

La., Sterlington. — Carbon Black. — Imperial Oil & Gas Products Co., 1105 Union Bank Bldg., Pittsburgh, Pa., organized; Jos. Hartman, Jr., Pres.-Mgr.; M. P. Leonard, V.-P.; both of Pittsburgh; J. H. Mann, Secy., Harrisonville, W. Va.; erect structural steel building; has let materials contracts; will not let building contract; manufacture carbon black; capacity about 10,000 lbs. daily.

La., New Orleans. — Biscuits. — Consumers' Biscuit Co. let contract Barbary & Moore, of New Orleans, to erect building; cost \$100,000; Nolan & Torre, Archts., New Orleans.

Mo., St. Louis. — Alpha Realty Co. will build factory; concrete foundation; cost \$12,000.

Mo., St. Louis. — Bedding. — National Bedding Co. will erect factory; site with 53-ft. frontage.

Mo., St. Louis. — Candy. — National Candy Co., 523-529 N. Main St., will rebuild plant reported burned at loss of \$3000.

Mo., St. Louis. — Food Products. — Louis Maull Food Products Co., North Market St. and Broadway, will erect building; 2 stories and basement; fireproof; steam heat; electric elevator; cost \$25,000; Gustav P. Wuest, Archt., Walnutright Bldg., St. Louis.

N. C., Asheville. — Paint. — Asheville Paint Co., capital \$25,000, incptd. by J. R. Cavanaugh, Bruce Drysdale and Haywood Parker.

N. C., Elizabeth City. — Bottling. — Coca-Cola Bottling Works will install plant in 2-story brick building, costing \$10,000, being erected.

N. C., Henderson. — Bags. — J. M. Peace is interested in proposed installation of machinery for manufacture of cotton and bur-lap bags, such as flour, meal and mill feed sacks, etc.

N. C., High Point. — Show Cases. — High Point Show Case Works will rebuild plant reported burned at loss of \$11,000.

Okla., Tulsa. — Lubricating Oil. — Home Lubricating Works, 411 E. Archer St., organized; J. O. Pittman, Pres.-Mgr.; S. D. Pittman, V.-P. and Secy.; will erect, by company force, 30x60-ft. mill-construction building; cost of building and machinery \$4000; install boiler, pumps, compounding kettles, etc.; daily capacity 1000 gals. lubricating oil. (Latest noted incptd., \$10,000 capital. (See Machinery Wanted—Boiler, etc.)

S. C., Columbia. — Bakery. — Birmingham's Modern Bakery plans to increase capital from \$1000 to \$10,000.

S. C., Spartanburg. — Candy. — Price Candy Co. increased capital from \$5000 to \$50,000. (Latest noted planning increase.)

Tenn., Knoxville. — Products. — Southern States Products Co., capital \$10,000, incptd. by L. A. Craig, W. A. Cockrum, C. G. Renegan and others.

Tenn., Richard City. — Potash. — Dixie Portland Cement Co., Chattanooga, considering installation of plant to manufacture potash; wires Manufacturers Record; Do not contemplate installation at this time.

Tex., Brownsville—Bottling.—Coca-Cola Bottling Works, P. O. Box 54, organized; J. C. Bogue, Pres.; Geo. V. Ducker, V.-P.; W. D. Galloway, Secy.-Mgr.; daily capacity 300 cases. (Lately noted inceptd., \$10,000 capital.)

Tex., Denton—Peanut Crushing.—Denton Oil Mill will erect peanut crushing plant.

Tex., Fort Worth—Peanut.—Golden Rod Mills will build brick factory structure, costing \$30,000; equip for handling peanuts.

Tex., Temple—Granite.—Temple Granite Works organized; J. F. Lillard, Pres.; J. P. Terrell, V.-P.; N. P. Woodward, Secy.; granite machinery is installed. (Lately noted inceptd., capital \$3000.)

Va., Buena Vista—Stationery Supplies.—W. V. Darling Mfg. Co., capital \$75,000, inceptd.; M. V. Darling, Pres.; M. F. Collins, V.-P. and Mgr.; Lawrence Embree, Secy.; continues manufacture of writing paper, envelopes, tablets, composition books, etc.

Va., Danville—Tie Roller.—Rippe's Easy Tie Roller Co., capital \$5000, inceptd. Solomon Rippe, Pres.; Harry Bertram, Secy.

Va., Fredericksburg—Oak Extracts.—Yanney Bark Co., Charlottesville, Va., will establish branch plant; manufacture oak extracts; has factory previously operated by Wigmore & Williams, of New York.

Va., Ivanhoe—Cheese.—Porter's Cross Roads Cheese Factory, capital \$2000, inceptd.; Wm. Wilkins, Pres.; H. M. Burnett, Secy.

Va., Norfolk—Purse-Garter Co., capital \$1000, inceptd.; Jacob Rotholz, Pres.; Irvin P. Hoag, Jr., Secy.

Va., Staunton—Dairy.—Staunton Dairy Products Corp. increased capital from \$10,000 to \$15,000.

MOTOR CARS, GARAGES, TIRES, ETC.

Ala., Birmingham—Motorcycles.—R. G. Williams Motorcycle Co., capital \$2500, inceptd.; James Esdale, Pres.; B. L. Williams, V.-P., and R. W. D. Williams, Secy.-Treas.

Ala., Montgomery—Garage.—Durr Drug Co. (John W. Durr) let contract to Gresson Construction Co., Montgomery, to erect 2 connected buildings, 50x100 ft. each; cost \$15,000; plans by Okel & Cooper, Montgomery.

Ark., Little Rock—Automobile Rebuilding, etc.—Mutual Motors Co., 217 Southern Trust Bldg., organized; F. H. Hazer, Pres.-Mgr.; G. C. Byrd, V.-P.; P. E. Henson, Secy.-Treas.; will open bids for machinery to repair and rebuild automobiles. Lately noted inceptd. with \$50,000 capital, etc. (See Machinery Wanted—Machine-shop Equipment.)

Ky., Louisville—Tires.—Embry-Rapier Tire Co., capital \$10,000, inceptd. by Sylvester Jos. Rapier, Jesse Wallace Embry and Sam J. Dant.

La., Gretna—Garage.—City let contract I. S. West of New Orleans, La., for \$5000 to erect garage and storehouse for road machines and city jail; plans by Jno. F. Charlton, 739 Gravier St., New Orleans. (See Building Contracts Awarded—City and County.)

Mo., St. Louis—Garage.—De Luxe Automobile Co. will occupy garage to be erected by J. C. Crowds Estate at 3424-30 Locust St.; elevator; roof adapted for parking; cost \$25,000; plans by A. J. Tuchschildt, St. Louis.

Mo., St. Louis—Garage.—Geo. D. Barnett will erect garage; 1 story; 50x140 ft.

N. C., Charlotte—Garage.—Paige Motor Co. will occupy garage to be erected by Edward D. Latta, Sr.

N. C., Charlotte—Salesroom and Garage.—Dawling Motor Co., 24 E. 6th St., let contract to J. P. Probst, 19 W. 5th St., Charlotte, to erect ordinary construction garage; 2 stories; 40 ft. 7 in. x 147 ft.; has purchased equipment; plans by Louis Asbury, Realty Bldg., Charlotte.

N. C., Charlotte—Garage.—Carolina Cadillac Co., J. R. Barkalow, Mgr., will occupy garage to be erected by Edward D. Latta, Sr.

Okla., Ardmore—Automobile Supplies.—Broadway Auto Supply Co., capital \$50,000, inceptd. by W. J. Blair and others.

Okla., Ardmore—Automobiles.—Slaughter Motor Co. increased capital from \$10,000 to \$50,000.

Okla., Hennessey—Garage.—C. F. Wells will erect brick garage.

Okla., Oklahoma City—Garage.—Stewart & Wilderson will erect concrete garage at 1016 N. Broadway; cost \$15,000.

S. C., Greenville—Automobile Tires, etc.—Cash Sales Agency organized to deal in automobile tires, tubes and accessories;

erect building at North and Laurens Sts. (In April, noted inceptd., \$15,000 capital, by J. M. Broom, S. S. Crittenden and A. E. Morris.)

S. C., Summerville—Garage.—Summerville Garage, capital \$3000, inceptd. by John B. Gadsden, Geo. von Ohlsen and Wm. B. Biechoff.

S. C., Walterboro—Garage.—Laurent Utsey will erect garage; D. C. L. Hiers, Contr.

Tenn., Memphis—Automobiles.—Cadillac Motor Sales Co., capital \$50,000, inceptd. by G. T. Taylor, Geo. H. Poole, A. G. Manning and others.

Tex., Ennis—Garage.—R. J. Caldwell will erect brick building.

Tex., Fort Worth—Garage.—Geo. W. Blue leased storage garage to be erected by Ben. J. Tillar and I. H. Burney at Fourth and Throckmorton Sts.; structure will be 2 stories; brick; 100x100 ft.; cost \$25,000; plans completed.

Tex., Henderson—Automobiles.—Henderson Motor Co., capital \$10,000, inceptd. by T. B. Mayfield, W. E. Norvell and Homer Harris, Jr.

Tex., Weatherford—Garage.—Newell Garage will re-erect structure reported burned at loss of \$1500.

Va., Richmond—Garage.—Fulton Brick Works will erect garage; cost \$4000.

Va., Richmond—Garage.—J. E. Featherstone will rebuild garage reported burned at loss of \$5000.

W. Va., Parkersburg—Automobiles.—Paige Sales & Service Co., capital \$100,000, inceptd. by Fred M. King, Geo. E. Work, S. A. Hays and others.

W. Va., Wheeling—Motor Haulage.—Miller Motor Haulage Co., capital \$5000, inceptd. by M. C. Miller, L. L. Solomon, H. L. Arbenz and others.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

Ky., Paducah.—Illinois Central R. R., A. S. Baldwin, Ch. Engr., Chicago, has let contract to erect roundhouse and hospital; total cost \$300,000.

ROAD AND STREET WORK

Ala., Florence—Lauderdale County will construct road beginning at end of Pike on Cloverdale Road and extending 4 mi. to State line; also road beginning at end of Pike on Waterloo Road and extending west 4 mi.; both roads to be graveled with creek gravel; County Comms. receive bids until June 10; M. S. Bingham, County Engr. (See Machinery Wanted—Road Construction.)

Ala., Gadsden.—Etowah County, S. J. Cummings, County Engr., let contract to J. H. Lynch, Dadeville, Ala., to construct 4½-mi. slag macadam and gravel road, with bituminous surface treatment; \$22,520 available; S. J. Cummings, County Engr. (Bids noted in Apr.)

Ala., Heflin.—Cibola County, D. S. Baber, Judge of Probate, rejected bids to grade, drain and surface with chert part of Heflin and Anniston Road; 3.5 mi.; \$25,000 available. (Bids lately noted for May 6.)

Ark., Augusta.—State Highway Coman., Little Rock, approved plans for road system in Woodruff and Prairie counties; 23.8 mi.; graded earth; Engr., E. E. Washburn, Cotton Plant, Ark.

Ark., Hardy.—Sharp County, T. J. Davidson, Secy., will construct 13 mi. dirt road; \$35,000 available; date of opening bids not set; Engr., Parks Engineering Co., Pine Bluff, Ark. (Sharp County, Dist. No. 1, lately noted issuing \$45,000 bonds.)

Ark., Hot Springs.—National Park Service of Interior Dept., Washington, Stephen I. Mather, Director, will improve roads of U. S. Reservation. (See Land Developments.)

Ark., Little Rock.—City appropriated \$30,000 toward paving Pike Ave., from 18th to 27th Sts., Street Improvement Dist. No. 16, and \$40,000 toward street improvements in Dist. No. 18. Address The Mayor.

Ark., Walnut Ridge.—Lawrence County Comms. have plans by State Highway Coman., Little Rock, for road from Walnut Ridge to Sedgewick, 10 mi.; cost \$60,000.

Fla., Jacksonville.—Duval County Commissioners, L. M. Meggs, Chrmn., will resurface St. Johns Ave., from city limits to McGirts Creek bridge with Tarvia and stone; 25,000 sq. yds.; bids until May 23. (See Machinery Wanted—Paving.)

Fla., Jacksonville.—Duval County Comms., L. L. Meggs, Chrmn., will pave St. Augustine Road, from end of present brick paving south to Bayard to county line; 5000 sq. yds.

brick paving and 10,000 lin. ft. concrete curbing; bids until May 23. (See Machinery Wanted—Paving.)

Fla., Miami.—City votes June 26 on \$40,000 bonds for street paving; lately noted as contemplated. Address City Engr. Murray. (See Sewer Construction.)

Ky., Campton.—Wolfe County voted 4-yr. tax for road improvements. Address County Comms.

Ky., La Grange.—Oldham County Fiscal Court let contract Alex. Staebler of St. Matthews, Ky., to construct 3¼ mi. Oldham-Trimble intercounty-seat road; 9 mi.; water-bound macadam; \$20,000 available; R. P. Neal, Engr., La Grange. (Lately noted inviting bids.)

Md., Annapolis.—Anne Arundel County will construct 1¼ mi. concrete road from Baltimore-Annapolis Blvd. to St. Margaret's Church in Third Election Dist.; includes concrete bridge over Mill Creek; County Comms. receive bids until May 14; E. T. Hayman, County Road Engr. (See Machinery Wanted—Road Construction.)

Miss., Vaiden.—Carroll County Highway Coman., Dist. No. 5, J. W. Ward, Chrmn., asks bids for June 1 to construct 30 mi. sand-clay roads; \$50,000 available; W. C. Stowell, Const. Engr., Hazlehurst, Miss. (See Machinery Wanted—Road Construction.)

Mo., St. Louis.—City let following contracts totaling \$38,740.15 for street paving: Eyermann Construction Co., 4 contracts totaling \$12,370.55; I. Segel, 4 contracts totaling \$16,906.90; Skraluka Construction Co., 1 contract at \$4680.75; John F. McMahon Construction Co., 1 contract at \$4781.95; all contractors of St. Louis.

N. C., Goldsboro.—City, E. A. Beck, City Mgr., will construct demonstration pavement of wire-cut lug blocks; afterward complete plans for 40,000 yds. paving. (Lately noted issuing \$40,000 bonds. (See Machinery Wanted—Paving Blocks.)

N. C., Lillington.—Harnett County, Grove Township, H. C. Roberts, Coats, N. C., Chrmn. Road Comms., will construct roads, cost \$30,000; date for opening bids not set. Bonds noted voted in April. (See Machinery Wanted—Road Machinery; Culverts.)

Tenn., Newport.—State Highway Coman., Nashville, appropriated \$25,000 to construct roads in Cocke County.

Tex., Wichita Falls.—Wichita County will construct 8.8 mi. gravel surfacing with bituminous surface treatment; 170.16 cu. yds. concrete and 368.96 cu. yds. concrete for drainage structures under 20 ft.; 300 lin. ft. concrete spillway; County Comms., E. P. Walsh, County Auditor receive bids until May 16. (See Machinery Wanted—Road Construction, etc.)

Va., Dinwiddie.—Dinwiddie County Supvrs. will expend \$20,000 for labor and materials to prepare Boydton Plank and Cox Roads for further improvement by State Highway Coman.

Va., Newport News.—United States Shipping Board, Emergency Fleet Corp., J. Rogers Flannery, Director of Housing, 1319 F St., Washington, will construct granolithic sidewalks and pave streets in connection with further development of Hilton, ¼ mi. from Newport News.; some streets to have parkways in center; Mellon-Stuart Co., Pittsburgh, Pa., is Gen. Contr.

W. Va., Huntington.—City will grade, curb and pave with vitrified brick 6000 ft. Norway Ave., from end of present paving east to corporation line; City Comms. receive bids until May 27; A. B. Maupin, City Engr. (See Machinery Wanted—Paving.)

W. Va., Parkersburg.—City contemplates paving South Chestnut St.; total estimated cost \$54,572, \$7640 being for curbing and \$46,932 for other work. Address The Mayor.

SEWER CONSTRUCTION

Ark., Hot Springs.—National Park Service of Interior Dept., Washington, Stephen I. Mather, Director, will construct storm and sanitary sewers, U. S. Reservation. (See Land Development.)

Fla., Miami.—City votes June 26 on bond issue for city's share of various improvements: Sanitary sewers, \$80,000; street paving, \$40,000; bridge over Miami River at Avenue D, \$30,000; bridge over Miami River at 12th St., \$10,000; sidings as part of local municipal railway between Biscayne Bay and Florida East Coast Ry., \$50,000. Address City Engr. Murray. (Lately noted as contemplating \$175,000 bond issue.)

N. C., Azalea.—War Dept., Washington, D. C., will construct sewer system for \$1,500,

000 tuberculosis sanatorium; Gude & Co., Gen. Contr., Atlanta, Ga.

Okla., Ardmore.—City, W. R. Roberts, Mayor, voted bonds for sewer construction. (In April, noted to vote on \$50,000 bonds to construct storm sewers and \$75,000 to improve sanitary sewer system.)

Okla., McAlester.—City engaged Burns & McDonnell, Engrs., Kansas City, Mo., to make preliminary survey and cost estimates on construction of sewage-disposal plant, etc.; contemplates voting on \$300,000 bond issue. (See Water-works.)

Tenn., Johnson City.—City contemplates constructing concrete sewer to dispose of chemical waste at Clinchfield Products Corp.'s plant. Address The Mayor.

Tenn., Nashville.—City will construct pipe sewer from Van and connecting with present sewer in Herman St.; also clay pipe sewer from and connecting with Cockrill Street sewer; bids opened May 14; Wm. Guppton, Mayor. (See Machinery Wanted—Sewer Construction.)

Va., Newport News.—United States Shipping Board, Emergency Fleet Corp., J. Rogers Flannery, Director of Housing, 1319 F St., Washington, will construct sewer system in connection with further development of Hilton, ¼ mi. from Newport News; Mellon-Stuart Co., Pittsburgh, Pa., is Gen. Contr.

W. Va., Weston.—State Board of Control, Charleston, W. Va., engaged C. E. Collins, Engr., Philadelphia, Pa., to prepare specifications for sewage-disposal plant at Weston State Hospital; appropriated \$45,000.

SHIPBUILDING PLANTS

Fla., Jacksonville—Dry Dock and Marine Railway.—Emergency Fleet Corp., Washington, D. C., will build dry dock and marine railway; investigating sites.

Fla., Tampa—Steel and Wood Ships.—Tampa Dock Co. has plans and specifications to construct marine ways for vessels up to 6300 tons and having dead weight lifting power of 2500 tons; expend \$100,000 to construct ways, \$125,000 for shops and \$25,000 for dredging; builds steel and wood ships. (Lately noted to expend \$250,000 for marine ways.)

La., New Orleans—Steel Steamships.—The Foundation Co., Woolworth Bldg., New York, has plans and specifications for \$1,250,000 shipyard; build on 89-acre site; buildings to have floor space of 6 acres; construct 4 shipways; buildings to include machine shop, fabricating shop, office, etc.; install plant machinery costing \$50,000; ordered all machinery and building materials; construct steel steamships of new unsinkable type; 4200-ton vessels; has French Government contract for 5 ships; employ 2500 men. (Lately noted to build \$1,250,000 shipyard.)

Md., Baltimore.—C. Durr & Sons, foot of Hanover St., will rebuild dry dock and repair shop reported burned.

Tex., Aransas Pass—Concrete Ships.—Emergency Fleet Corp., Washington, D. C., investigating Harbor Island as 1 of the 5 concrete shipyards Government contemplates establishing; \$50,000,000 asked of Congress and approved by President, for these shipyards.

Tex., Beaumont—Assembling and Distributing Plant.—Emergency Fleet Corp., Wm. M. Hind, Installation Supt., purchased 100-acre waterfront site for ship assembling and distributing plant; install mechanical equipment of Government vessels; equip 52 wooden ships under construction for Government at Beaumont, Houston, Orange, Rockport, each in Texas, and Morgan City, La.; 2500-ton vessels. (Lately noted to establish \$500,000 assembling plant.)

TELEPHONE SYSTEMS

Okla., Enid.—Garland Mutual Telephone Co. inceptd. by J. H. Britton and others.

Okla., Oklahoma City.—Pioneer Telephone Co. will repair brick building; cost \$4000; H. P. Smiser, Contr.

Va., Hampton Roads.—Bureau Yards and Docks, Navy Department, Washington, D. C., will install automatic telephone system in general storehouse at Hampton Roads; cost \$12,500; bids until May 20. (See Machinery Wanted—Pumping Unit.)

Va., Newport News.—Chesapeake & Potomac Telephone Co. (main office, 108 E. Lexington St., Baltimore) purchased site 75x175 ft., on which to erect telephone exchange; estimated cost \$40,000; plans completed. (Noted in March.)

TEXTILE MILLS

Ala., Decatur—Hosiery.—Decatur Hosiery Mills will add 20 knitting machines.

Ga., Barnesville—Cotton Yarn.—J. C. Collier of Barnesville, and Floyd S. Corbin, 10 Wall St., New York, plan to build cotton yarn mill.

Ga., Hawkinsville.—Hawkinsville Mfg. Co., lately noted inceptd. by L. A. Wilson and others, will manufacture cottonseed products. (See Cottonseed-Oil Mills.)

Ga., Lavonia—Cotton Duck.—Russell Cotton Mills organized; capital \$100,000; J. R. Dortch, Pres.; J. P. Stochton, Treas.; C. A. Sweet, Mgr.; has plant; manufacture cotton duck.

Ky., Louisville.—Dye Works.—Ohio Falls Dye and Finishing Works will erect addition; cost \$8500.

Ky., Princeton—Hosiery.—Princeton Hosiery Mills organized, capital \$30,000; W. E. Cochran, Pres.; R. E. Hearne, V.-P.; G. G. Harralson, Secy.-Treas.; opened bids May 8 to erect 32x190-ft. brick building; cost \$8000; 50 knitting machines; purchased machinery, cost \$20,000; electric power equipment. (In April noted to establish plant.)

La., New Orleans—Cotton Goods.—Lane Cotton Mills will erect building; 1 story; brick; cost \$24,703.78.

N. C., Burlington—Hosiery.—W. W. Brown and others will establish hosiery mill; occupy building to be erected by Central Loan & Trust Co.

N. C., Forest City—Dyehouse.—Florence Mills will not make improvements to dyehouse. (Recent report incorrect.)

N. C., Kernersville—Hosiery.—Kernersville Knitting Co., office at High Point, N. C., will establish mill; purchased machinery; daily capacity 1000 dozen pairs misses' ribbed hose. (Lately noted inceptd. with \$125,000 capital.)

N. C., Siler City—Hosiery.—Stout Bros. Lumber Co. changed name to Siler City Hosiery Mills and increased capital to \$100,000.

N. C., Staley—Hosiery.—Staley Hosiery Mills organized; C. P. Fox, Pres.; C. M. Staley, Secy.-Treas.; erect building; install 25 knitting machines; manufacture infants' and misses' ribbed hose. (Lately noted chartered with \$50,000 capital.)

N. C., Thomasville—Knit Goods.—Ragan Knitting Mills, capital \$25,000, inceptd. by A. H. Ragan and Levi Hayworth of Thomasville, and R. R. Ragan of High Point, N. C.

S. C., Cheraw—Hosiery.—M. B. Smith & Sons plan to establish hosiery knitting mill.

S. C., McColl—Cotton Cloth.—Marlboro Cotton Mills will erect additional building for No. 4 mill; install machinery for finishing cotton yarn.

Va., Roanoke—Underwear.—Carolina Cotton & Woolen Mills, Spray, N. C., will establish branch mill; manufacture children's finished underwear; daily output 1000 to 1500 suits; purchased machinery.

WATER-WORKS

D. C., Washington.—Comms. District of Columbia, 509 District Bldg., will install at District pumping station steam-driven centrifugal pumping unit; 24-hour capacity 15,000,000 gals; bids until May 24. (See Machinery Wanted—Pumping Unit.)

Ga., Manchester.—City votes June 14 on \$10,000 bonds to complete water-works. W. M. Moore, Mayor.

La., Cedar Grove.—City contemplates constructing water-works. Address The Mayor.

N. C., Charlotte.—City, A. H. Wearn, Commissioner Public Works, advises Manufacturers Record: Will open bids May 23 for pumps, etc., for Water Dept.; recently noted as follows: Will install centrifugal pumping units for water-works; invites bids; contract to be let as soon as reasonable time is allowed for filing of proposals; Anderson & Christie, Conslt. Engrs., Charlotte; W. E. Vest, Supt. Water-works. Lately noted planning improvements and extensions costing \$175,000. (See Machinery Wanted—Pumping Equipment.)

Okl., Ardmore.—City, W. R. Roberts, Mayor, voted bonds for water-works. (In April, noted as to vote on \$300,000 bonds for additional water supply and \$100,000 to extend city mains.)

Okl., McAlester.—City engaged Burns & McDonnell, Engrs., Kansas City, Mo., to make preliminary survey and cost estimates on construction of water supply, installation of filtration system and building of sewage-disposal plant; contemplates voting on \$500,000 bond issue.

Okl., Yale.—City is considering \$200,000

bond issue to construct water-works and electric-light system. Address The Mayor.

S. C., Charleston.—Comms. Public Works, Jas. E. Gibson, Mgr. and Engr., 14 George St., ask bids until May 20 to construct concrete spillway and reinforcement of earthen dam, Goose Creek impounding reservoir near Saxon Station; requirements include 5500 sq. yds. stripping, 7730 cu. yds. excavation, 8900 cu. yds. embankment, 24,000 lbs. reinforcing steel and expanded metal, plain and reinforced concrete, sheet piling, etc. (See Machinery Wanted—Concrete Spillway and Dam Reinforcement.)

Tex., Abilene.—City Comsn. accepted plans and specifications for construction Elm Creek dam for water-works; dam to be 3000 ft. long at top; 300 ft. wide at base where dam will be 50 ft. high; 500,000 cu. yds. dirt and 2500 cu. yds. concrete; spillway 1000 ft. long, 1 mi. northwest of dam center; drain to east and waste water will return to creek 1 mi. below dam; estimated cost \$200,000; Horace Roberts, City Secy. (Previously noted authorizing \$230,000 bonds.)

WOODWORKING PLANTS

Ala., Mobile—Ready-cut Houses.—Southland Home Co., capital \$40,000, inceptd. by W. A. Curtis, J. M. Clancy, James F. Wolf and others.

Ark., Paragould—Staves.—Henry Wrape Co. will rebuild stave plant reported burned at loss of \$75,000.

Ark., Little Rock—Barrels, etc.—Little Rock Barrel & Box Co. inceptd.; capital \$20,000; R. H. McNair, Pres.; B. E. McNair, V.-P.; G. A. McLean, Secy.-Treas.

Ga., Rome—Boxes.—Georgia Box & Mfg. Co. organized; purchased plant of Georgia Mfg. Co.; continue lumber and bottle-case manufacture. (Lately noted inceptd., capital \$10,000.)

Miss., Sartartia—Spokes.—Tusclometa Spoke Co., D. P. Ott, Pres.-Mgr., Goodman, Miss., has machinery for branch plants lately noted to be erected at Phoenix, Miss., and Sartartia; mill-construction buildings, costing few hundred dollars each; no contracts; install 2 or 3-spoke machines in each plant; daily output 10,000 club turned spokes.

Miss., Phoenix—Spokes.—Tusclometa Spoke Co., Goodman, Miss., will erect small mill-construction buildings, cost several hundred dollars; has machinery; erect similar plant at Sartartia, Miss. Lately noted. (See Miss., Sartartia.)

Mo., St. Louis—Veneer.—St. Louis Basket Co., 147 Arsena St., will alter veneer mill at cost of \$8000.

N. C., Elizabeth City—Staves, etc.—Southern Roller, Stave & Heading Co. will rebuild plant reported burned.

S. C., North Augusta—Cooperage.—Excelsior Cooperage Co., capital \$5000, inceptd. by F. H. Perry of North Augusta, and Geo. M. Martin of Augusta, Ga.

Va., Fuls Run—Staves.—Excelsior Lumber Co., lumber manufacturer, contemplates installing machinery to manufacture slack barrel and keg staves. (See Machinery Wanted—Stave Machinery.)

W. Va., Hartland—Boxes.—Thos. W. Berry will establish box factory; purchased equipment.

W. Va., Huntington—Staves.—Tri-State Lumber & Stave Co., capital \$25,000, inceptd. by H. D. McClintock, H. C. Walburn, R. D. Heinz and others.

FIRE DAMAGE

Ala., Gadsden.—Mrs. Ella Sampler's residence on College St.

Ala., Gadsden.—W. T. Cox's residence.

Ala., Montgomery.—J. D. Carter's residence; loss \$6000; R. W. Robinson's residence and R. L. Pitt's residence; loss on 2 latter structures \$10,000.

Ala., Opelika.—T. C. Hudmon's store; L. J. Dorsey's store; John A. Jones' office; estimated loss \$30,000 to \$40,000.

Ark., Amity.—T. E. Teague's grist mill; loss \$4000.

Ark., Batesville.—Geo. Killman's cotton gin and grist mill; loss \$2500.

Ark., Cotton Plant.—Cotton Plant & Trust Co.'s bank; Meehan Garage; Harry Barnett Dry Goods Co.'s store; Boone Hardware Co.'s store; Hotel Moore; J. I. Shelton's store; Cotton Plant Bakery; Carter's Livestock Barn; estimated loss \$60,000 to \$70,000.

Ark., Eureka Springs.—Granger-Kelly Lumber Co.'s planing mill; loss \$20,000.

Ark., Hardy.—R. M. Jackson Co.'s store; loss \$10,000.

Ark., Paragould.—Henry Wrape Co.'s stave plant; loss \$75,000.

Ark., Paragould.—Perkins Commission House; loss on building, owned by Mrs. E. B. Perkins, \$20,000.

Ark., Van Buren.—A. Seelbinder's residence.

Fla., Miami.—L. A. Fitch's residence, under construction; loss \$3500.

Fla., Tarpon Springs.—Greek Church; loss \$15,000; Rev. Father Davis, Pastor.

Fla., Wimauma.—W. J. Wadsworth's residence; owned by D. G. Thorp, Townsend, Ga.

Fla., Ybor City.—(Ind. Sta. Tampa).—Store of S. H. Kress & Co., 350 Broadway, N. Y.; loss \$15,000. H. J. Powell, local manager.

Ga., Nicholls.—Merchants and Farmers' Bank; Carl Meeks' store; Cannon & Barksdale's drug store; Burkett & Street's store; Nicholls Telephone Exchange; estimated loss \$100,000.

Ky., Louisville.—Edward Reidling's store, and adjoining buildings; loss \$60,000.

Md., Baltimore.—C. Durm & Sons' dry dock and repair shop at foot of Hanover St.

Md., Dayton.—Charles Gordon's barn.

Md., Ellicott City.—Barn, carriage-house and chicken-house on farm of August Knell.

Md., West Friendship.—Oliver Cross' barn.

Md., Fensville, R. D. from Frederick.—Claude Hargett's barn; loss \$3500 to \$4000.

Miss., Leakesville.—Bear Creek Lumber Co.'s plant; loss \$100,000.

Miss., Meridian.—J. C. Cooper's residence.

Mo., St. Louis.—National Candy Co.'s plant at 523-29 N. Main St.; loss \$3000.

N. C., Radin.—Hardaway Contracting Co.'s rock-crushing and concrete-mixing plants; loss \$60,000; main office at Columbus, Ga.

N. C., Edenton.—John C. Bond's fishhouse.

N. C., Elizabeth City.—Southern Roller, Stave & Heading Co.'s plant.

N. C., High Point.—High Point Show Case Works, owned by Frank Gurley, loss \$11,000; residences of Lloyd Warren, Geo. Sink, John Squires, Lee Howell and A. C. Huffman; O. A. Kirkman's store; total loss \$25,000.

N. C., James City.—Munger & Bennett's lumber plant; loss \$20,000 to \$30,000; offices in Newbern, N. C., and Camden, N. J.

S. C., Greenville.—C. F. Dill's building, occupied by Rogers Millinery Store and Yeagers Quality Shop; loss \$5000.

Tenn., Cades.—Barns of Wheeler Martin, Hiram Ham and James Appleton.

Tenn., Church Hill.—Henry Boyd's barn; loss \$3000.

Tenn., Columbia.—J. Ross Burns' residence.

Tex., Athens.—J. B. Henry's plant, loss \$15,000; Larue & Barron's 2 warehouses, loss \$3000.

Tex., Bangs.—Martin & Davis' cotton gin; loss \$15,000.

Tenn., Doyle.—Claud Clark's store; loss several thousand dollars.

Tenn., South Christian.—Barn owned by Richard Leavell of Clarksville, Tenn.; loss \$3000.

Tex., Temple.—Mrs. J. M. Russ' dwelling; loss \$4000.

Tex., Waco.—Don Hobbs' residence, 31st St. and Jefferson Ave.

Tex., Weatherford.—Newell Garage; loss \$1500.

Va., Richmond.—J. E. Featherstone's garage; loss \$5000.

Va., Salem.—James Winfree's residence, owned by Giles Adams of Roanoke, Va.; loss \$3000.

W. Va., Bluefield.—Robt. Viers' residence.

W. Va., Falling Waters.—Farmhouse near Falling Waters; owned by Mrs. J. McDonald, E. John St., and occupied by Dennis Milburn.

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Fla., Lake Worth.—D. I. Ames, Prop. Hotel Lake Worth, will erect apartment-house; 15 suites.

Fla., Miami.—C. H. Ward will erect 2-story frame apartment-house; cost \$4000.

Fla., St. Petersburg.—M. D. Seaman is supervising construction of brick apartment-house at 5th Ave. and 7th St.; cost \$8500.

Mo., St. Louis.—Thelma Johnson is reported to erect double flat building containing 4 flats of 3 rooms each; tile baths; granitoid cellar; furnace heat; construction under supervision of Frank L. Dittmeier Real Estate Co., St. Louis.

Okl., Duncan.—J. K. Wells, Oklahoma City, plans to erect apartment-house.

Okl., Oklahoma City.—C. E. Huffman will erect 2-story frame apartment-house at 1011 W. 21st St.; cost \$12,000. (See Dwellings.)

Okl., Sulphur.—J. D. Ramsey will erect building to replace burned structure; possibly 2 stories with upper floor probably for apartments. (See Theatres.)

Okl., Tulsa.—M. C. Hale will erect three 2-story apartment houses; cost \$25,000.

Tex., Houston.—F. S. Glover will erect 2-story stucco apartment-house and garage; cost \$9000.

ASSOCIATION AND FRATERNAL

La., Monroe.—Woodmen of the World Lodge No. 10, J. W. McWilliams, Clerk, deferred erection of lodge building indefinitely. (Lately noted to erect 3-story brick building to cost \$30,000 to \$35,000.)

Tex., Fort Worth.—North Side Masonic Lodge will erect 3-story brick lodge building; cost \$25,000.

BANK AND OFFICE

Ala., Decatur.—City National Bank will improve building; interior furnishings of mahogany and marble.

Ala., Monroeville.—H. E. Hudson will erect bank building; 60x90 ft.

Fla., Live Oak.—Standard Lumber Co. leased Elks' Bldg. and will remodel for office building.

La., Longville.—Bank being organized by B. H. Smith and others plans to erect building; brick; details not determined.

La., Monroe.—Ouachita National Bank, T. E. Flournoy, Pres., will erect bank building.

La., New Orleans.—Hibernia Bank & Trust Co. will erect branch bank and office building on industrial canal to be known as Industrial Branch of Hibernia Bank & Trust Co.

N. C., Greensboro.—American Exchange National Bank receives bids until May 15 (extended date) for general contract heating, plumbing, electric wiring, marble and tile for bank and office building; 9 stories and basement; fireproof; reinforced frame; stone, brick, concrete and terra-cotta exterior facing; concrete slab and composition roofing; concrete composition, marble, tile and terrazzo floor construction; ornamental iron stairways; steam heat; electric lights; electric elevators; proposals for passenger elevators, vault work, hardware, electric fixtures and miscellaneous materials and equipment taken later; plans by Raleigh James Hughes, Greensboro, who may be addressed. (Lately noted.)

N. C., Raleigh.—Farmers & Merchants State Bank will erect bank building; 40x100 ft.; 2 stories.

Okl., Coalgate.—First National Bank will remodel building; cost \$5000.

Okl., Oklahoma City.—American National Bank will erect building.

Okl., Sulphur.—J. Hassen will erect office and business building. (See Stores.)

Tex., Bryan.—First State Bank & Trust Co. is having plans prepared by M. L. Waller, Fort Worth, for remodeling building for bank.

W. Va., Dunbar.—Dunbar Realty Co. will erect office building and warehouse.

W. Va., St. Albans.—First National Bank and St. Albans Hotel rejected all bids to erect bank and hotel building, and deferred erection indefinitely; 5 stories; fireproof; Barrett specification roof; follow-tile and joist floors; vacuum steam heat; electric lights; 2 passenger elevators; cost \$100,000; W. B. Camp, Archt., Charleston, W. Va. (See Hotels.)

CHURCHES

Ala., Montgomery.—Old Ship Church, Rev. W. W. Matthews, pastor, will erect building; cost about \$5000.

Fla., Tarpon Springs.—Greek Congregation, Rev. Father Davis, pastor, is considering erecting \$50,000 structure to replace building noted damaged by fire.

Fla., St. Petersburg.—First Baptist Church has plans by R. H. Hunt, Chattanooga, for building; seating capacity 1000; garden on roof; cost \$30,000. (Lately noted.)

Ky., Lexington.—Church of the Good Shepherd has plans by Chas. B. Young, Strand Theater Bldg., Lexington, for building; 91x165 ft.; stone walls; wood floor construction; slate roof; hot-air heat; cost \$25,000; contract to be let in detail by building committee. (Previously noted.)

La., Grand Isle.—Wm. R. Burke, Hicks Bldg., New Orleans, is preparing plans for church building.

La., Jennings.—Our Lady Help of Christian Catholic Church, Rev. L. Espitalier, Pastor, receives bids until June 3 to erect proposed building; plans and specifications at office Favrot & Livaudais, Ltd., Architects, Title Guarantee Bldg., New Orleans.

Miss., Lula.—Baptist Church is having plans prepared by M. M. Alsop, Clarksdale, Miss., for \$12,000 structure.

Mo., St. Louis.—Sixth Church of Christ, Scientist, will erect building in 3200 block Palm St.

N. C., Concord.—First Baptist Church will erect building at Broad and Spring Sts. to replace structure lately noted damaged by fire; seating capacity 350; brick veneer; slate or shingle roof; No. 1 flooring; furnace heat; electric and gas lighting; cost \$5000; P. P. Eaton is interested.

Okla., Dewar.—Methodist Church will erect building. Address The Pastor.

Okla., Tulsa.—Methodist Episcopal Church South has plans by John Franklin, 412 S. Frisco St., for building; 30x60 ft.; frame; cost \$7000. (Lately noted.)

Tenn., Memphis.—Prescott Memorial Baptist Church, Rev. E. L. Watson, Pastor, will erect building adjoining West Tennessee State Normal School; cost \$20,000.

CITY AND COUNTY

Fla., Larkins.—Training School.—Dade County Commrs., Miami, plan to erect training school at County Farm for Delinquent Boys and Girls. Address County Commrs.

Fla., Miami.—Armory.—Dade County Commissioners will have plans drawn for Dade County Armory and Auditorium; seating capacity 2500 to 5000; will vote on \$75,000 bonds. (Previously noted.)

Fla., Pensacola.—Jail.—Escambia County Commrs., J. Geo. White, Chrmn., receive bids May 25 to remove old roof and construct roof on jail and courthouse; plans and specifications at office Clerk of Circuit Court, Pensacola. (Lately noted to open bids May 7.)

Ga., Athens.—Barracks, etc.—City of Athens and Clarke County will vote on \$6000 bonds to erect barracks and mess hall on Lucas Hill, and \$75,000 bonds to erect group of dormitories and dining hall on Lumpkin Hill. Address Mayor and County Commrs. (See Schools.)

Mo., Joplin.—Jail.—City is having plans prepared by T. E. Martini, 420 N. Wall St., Joplin, for jail at 513 Kentucky Ave.; concrete; cost about \$50,000.

Mo., Kansas City.—Home, etc.—Leo M. Gilday, Clerk, Jackson County, receives bids until May 18 for alterations to dining hall at McCune Home for Boys of Jackson County; also for addition to county jail; White & Dean, Architects, 311 Bellefontaine Ave., Kansas City.

S. C., Charleston.—Offices.—Commrs. of Public Works, Water Dept., deferred altering building at 14 George St. indefinitely; Walker & Burden, Architects, 42 Broad St., Charleston. (Previously noted.)

Tenn., Chattanooga.—Skating Rink and Dance Hall.—City will rebuild skating rink at Warner Park recently damaged by fire; cost \$2550; also remodel old theater for dance hall; cost \$3000; E. D. Herron, Commr. Public Utilities, Grounds and Buildings, Room 25, City Hall. (Lately noted.)

Tex., El Paso.—Warehouse.—El Paso County, J. A. Escudé, Auditor, has plans by Trost & Trost, 515 Mills Bldg., El Paso, for warehouse.

W. Va., Martinsburg.—Hose House.—John H. Zirkle, City Recorder, receives bids until

May 21 for building for Hose Company No. 3 on Virginia Ave.; separate bids for plumbing, heating and wiring; plans and specifications from C. E. Kent, Archt., Martinsburg. Structure 25x40 ft.; 2 stories and basement; brick walls; Century asbestos shingle roof; wood floors; direct steam heat; electric lights from local plant; approximate cost \$4000.

COURTHOUSES

Fla., Pensacola.—Escambia County Commissioners, J. Geo. White, Chrmn., receives bids until May 25 to remove old roof and construct roof on courthouse and jail; plans and specifications at office Clerk of Circuit Court. (Lately noted.)

Tex., Paris.—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., opened bids to erect postoffice and courthouse; W. O'Neill & Son Co., Fairbault, Minn., is low bidder at \$170,590. (See Government and State.)

DWELLINGS

Ala., Birmingham.—C. T. Rambow will erect frame dwelling; cost \$3000.

Ala., Birmingham.—A. Z. Outlaw will erect residence; frame; cost \$2000.

Ala., Birmingham.—O. H. Goldner will erect dwelling; frame; cost \$2400.

Ala., Fairfax.—Fairfax Cotton Mill will erect 10 additional dwellings for employees; 3 rooms; wood; composition roof.

Ark., Texarkana.—Mrs. Beulah Henderson will erect residence.

Ark., Texarkana.—Mrs. Nellie B. Reynolds will erect 2-story 8-room residence; cost \$5000.

D. C., Washington.—Taylor Bros. will erect 1-story frame dwellings, 100-12 Xenia St. S. E.; cost \$6000.

D. C., Washington.—Foxall Heights Co., 710 14th St. N. W., has plans by Chas. S. Salu to erect dwelling, 1414 44th St. N. W.; cost \$3500.

Fla., Jacksonville.—H. Taylor & Son will erect residence; stucco; also frame garage; cost \$4350.

Fla., Miami.—Walter Waldwin will erect residence; concrete; cost \$3000.

Fla., Miami.—J. C. Kirkland will erect \$2000 residence.

Fla., St. Petersburg.—E. H. Lewis will erect 2-story residence at Koster St. and 6th Ave.

Fla., St. Petersburg.—C. C. Meacham will erect addition to residence on 7th Ave.

Ga., Atlanta.—J. T. Wilhardt will erect 1-story dwelling; cost \$3500.

Ga., Atlanta.—E. H. Rosecrans will erect brick-veneer dwelling; cost \$5000.

Ga., Augusta.—Ralph H. Arrington has plans by Thos. M. Campbell, Johnson Bldg., Augusta, for bungalow; frame; composition shingle roof; pine floors; hot air heat; cost \$10,000.

Ga., Thomasville.—Mrs. H. C. Wolters will erect 2-story residence; bungalow style; construction under supervision of Wm. Miller, Thomasville. (Lately noted.)

Ky., Louisville.—F. B. Marshall will erect dwelling; brick; cost \$3500.

La., New Orleans.—Mrs. May Schmidt will erect 2-story residence; cost \$3000.

La., New Orleans.—Carondelet Realty Co. will erect residence; 2 stories; frame; cost \$2000.

Md., Baltimore.—Acme Building Co., 517 Equitable Bldg., will erect 87 dwellings on Reisterstown Rd. and Milton Ave.; 2 stories. (Company lately noted to erect 35 dwellings on Reisterstown Rd., between Ullman Lane and Park Circle.)

Miss., Belen.—R. W. Alcorn is having plans prepared by M. M. Alsop, Clarksdale, Miss., for residence.

Miss., Clarksdale.—A. D. Neely is having plans prepared by M. M. Alsop, Clarksdale, for remodeling residence; cost \$11,000.

Miss., Shelby.—J. W. Thomas is having plans prepared by M. M. Alsop, Clarksdale, Miss., for \$9000 residence.

Mo., St. Louis.—C. Dexheimer will erect 1-story dwelling; cost \$3900.

Mo., St. Louis.—K. Richardson will erect 1-story dwelling; cost \$2000.

Mo., St. Louis.—G. A. Sundquist will erect three 1-story dwellings; cost \$6000.

Mo., St. Louis.—Lindell Fair Ground Realty Co. will erect four 2-story dwellings at 4945-51-56-59 Maditt St.; cost \$20,000.

Mo., St. Louis.—Theron E. Catlin will erect residence.

Mo., St. Louis.—Chas. N. Drake will erect bungalow on Queens Ave.

N. C., Charlotte.—J. P. Carr will erect 5-room dwelling; cost \$2000.

N. C., Charlotte.—Community Housing Co. Incptd. with \$10,000 capital by A. J. Draper, Robt. Lassiter and J. B. Efrid.

N. C., Charlotte.—Thies-Smith Co. has permit to erect residence for W. H. Overcash; 2 stories; cost \$7000.

N. C., Reidsville.—Wray Company will erect number of dwellings.

N. C., Wilmington.—Victory Home Co. organized with \$1,000,000 authorized capital by C. C. Chadbourne, D. N. Chadwick, James Owen Reilly, Roger Moore and others; will erect dwellings for shipyard employees.

N. C., Winston-Salem.—W. Ray Johnson is having plans prepared for residence in Ardmore.

N. C., Winston-Salem.—Will Pannell purchased residence on W. Fifth St. and is having plans prepared for remodeling and enlarging same.

Okla., Enid.—J. Giles will erect \$3000 bungalow.

Okla., Muskogee.—Alta Vista Improvement Co. will erect 2-story California aeroplane bungalow.

Okla., Muskogee.—Alex Moses will erect bungalow.

Okla., Muskogee.—Geo. Leopold will erect 2-story residence at 16th and Boston Sts.

Okla., Muskogee.—Bennett B. Bostic will duplex residence.

Okla., Muskogee.—J. E. Phillips will erect bungalow.

Okla., Muskogee.—J. C. Wilhoit will erect residence on West Broadway.

Okla., Muskogee.—I. T. Wysong will erect residence on West Broadway.

Okla., Muskogee.—J. A. Vaughan will erect residence on West Broadway.

Okla., Muskogee.—Jyle Declus will erect residence on West Broadway.

Okla., Muskogee.—Lee Hays will erect residence on Agency Hill.

Okla., Muskogee.—Roy Sampson will erect 2-story residence on West Broadway.

Okla., Muskogee.—W. L. Hoffman will erect 2-story residence in Alta Vista.

Okla., Norman.—E. B. McCall will erect 6-room residence; cost \$3500.

Okla., Norman.—J. D. Pierson will erect 5 bungalows to cost \$15,700.

Okla., Norman.—Prof. Jacobs will erect residence.

Okla., Norman.—J. Lee will erect residence; cost \$2500.

Okla., Oklahoma City.—O. White will erect frame residence at 1115 W. 38th St.; cost \$2500; also \$3000 dwelling 1228-9 10th St.

Okla., Oklahoma City.—L. C. Stone will erect \$3500 residence.

Okla., Oklahoma City.—Lulu Mitchell will erect \$2800 frame residence.

Okla., Oklahoma City.—C. E. Huffman will erect 2-story frame residence at 312 W. 20th St.; 1-story frame residences at 2417 N. Robinson St., 1101 W. 41st St., 2924 W. 11th St., 1616 W. 33rd St. and 2-story brick veneer dwelling at 629 W. 19th St.; total cost \$36,775; also apartment house at 1011 W. 21st St. to cost \$12,000.

Okla., Oklahoma City.—Dr. Jones will erect frame residence at 1612 W. 33rd St.; cost \$3000.

Okla., Oklahoma City.—Nichols & Chandler will erect 3 one-story dwellings on W. 19th St.; cost \$12,000; also erect 2-story dwelling at 294 W. 20th St.; cost \$6000.

Okla., Oklahoma City.—W. J. Stoner will erect frame residence; cost \$3000.

Okla., Oklahoma City.—J. H. Struck will erect \$3500 frame residence.

Okla., Oklahoma City.—E. N. Redman will erect frame residence at 1609 W. 32nd St.; cost \$3000.

Okla., Oklahoma City.—Gill & Connor will erect 12 one-story frame residences in 1600 block W. Park St., N. Western Ave., 15th, 24th, 27th and 12th Sts.; cost \$38,200.

Okla., Oklahoma City.—Stewart & Wilderson will erect 1-story frame dwellings at 2225 W. 14th St. and 1844 W. 10th St.; 2-story frame dwelling, 924 W. 16th St.; cost \$10,000.

Okla., Sapulpa.—J. Denton will erect 5 dwellings.

Okla., Sulphur.—Chas. Brian will erect bungalow; day labor under supervision of owner.

Okla., Sulphur.—Lon Polk will erect bun-

galow; day labor under supervision of owner.

Okla., Tulsa.—Otto J. Murer, 236 E. Jasper St., will erect residence; 30x36 ft.; frame; shingle roof; wood floors; electric lights; cost \$3000; plans and construction by owner. (Lately noted.)

Okla., Tulsa.—Mangrum & Hall will erect \$5000 residence at 2404 Federal Ave.

Okla., Tulsa.—G. W. Hambaugh will erect \$3000 residence.

Okla., Tulsa.—C. O. Coprey will erect \$3000 residence.

Okla., Tulsa.—G. W. Davis will erect residence; cost \$3000.

Okla., Tulsa.—J. B. Stradford will erect \$10,000 residence.

Okla., Tulsa.—C. E. Worner will erect \$4000 residence.

Okla., Tulsa.—Harry Gibbs will erect \$6000 residence.

Okla., Tulsa.—J. T. Lantry will erect \$2000 residence.

Okla., Tulsa.—T. Cherryhome will erect \$3895 residence.

Okla., Tulsa.—W. E. Hall will erect \$6300 residence.

Okla., Wynnewood.—J. Y. Wheeler will remodel residence.

Okla., Wynnewood.—Mr. Finlaysons will erect bungalow at Gardner & Cherokee Sts.

Okla., Wynnewood.—J. A. Lawrence will rebuild residence.

Okla., Wynnewood.—J. E. Gibson will remodel residence.

Okla., Wynnewood.—W. B. Bowlander will erect residence.

Okla., Wynnewood.—E. L. Keys will erect residence.

Okla., Wynnewood.—J. E. Keys will erect bungalow.

S. C., Greenville.—Dr. T. G. Crymes will remodel dwelling; cost \$4500.

S. C., Greenville.—Dr. T. G. Crymes will remodel dwelling; cost \$4500.

Tenn., Clarksville.—W. A. Settle purchased residence on Commerce St. and will remodel for bungalow.

Tex., Abilene.—Ross Williams will erect bungalow.

Tex., Amarillo.—R. Conklin will erect \$2500 residence.

Tex., Amarillo.—L. B. Newby will erect \$2750 residence.

Tex., Beaumont.—C. D. Smith has plans by C. A. Logan, Beaumont, for residence; 5 rooms; cost \$4000.

Tex., Beaumont.—T. H. Garner has plans by Babin & Beck, Beaumont, for residence; 8 rooms; cost \$6000.

Tex., Beaumont.—E. J. Miller will erect 2 dwellings; cost \$3300.

Tex., Beaumont.—J. T. McGill has plans by C. A. Logan, Beaumont, for residence; 2 stories; hollow tile and stucco; cost \$8000.

Tex., Claco.—Mr. Eppler will erect residence; tile; cost \$6000; R. S. Glenn, Archt., Abilene, Tex.

Tex., Ennis.—H. E. Miller will erect residence.

Tex., Ft. Worth.—B. G. Rhodes and John C. Ryan, Jr., will erect one 2-story brick veneer 8-room residence on 5th Ave. and two 1-story brick veneer residences on 6th Ave.; 5 and 7 rooms respectively; total cost \$20,350.

Tex., Ft. Worth.—John C. Ryan, Jr., will erect one 2-story tile 9-room residence; one 1-story brick veneer 7-room residence and two 1-story tile 7-room residences; all buildings in 2500 block 6th Ave.; total cost \$35,600.

Tex., San Antonio.—H. P. Drought will build dwelling; 8 rooms; cost \$8900.

Tex., San Antonio.—Walter Martyn will erect 5-room dwelling; cost \$5000.

Tex., Victoria.—R. H. Welder will erect residence.

Va., Alexandria.—Virginia Shipbuilding Corp. will erect dormitory and dining room for employees at Battery Rodgers.

Va., Norfolk.—Dempsey Watkins will erect frame dwelling; cost \$16,700.

W. Va., Clarksburg.—Omar V. McClain, 830 W. Pike St., will erect residence; 18x46 ft.; 6 rooms and bath; brick and frame; slate roof; oak and yellow pine floors; cost \$2500; heating and lighting \$100 each; completion not before fall; plans and construction by owner. (Lately noted.)

W. Va., Hartford.—Mason Coal & Chemical Co., A. D. Williams, Prest., Morgantown, W. Va., will erect number of dwellings for coal mine operatives.

GOVERNMENT AND STATE

Ark., Hot Springs.—Park Improvements.—National Park Service of Interior Dept., Washington, D. C., Stephen I. Mather, director, accepted preliminary drawings and report by Mann & Stern, Little Rock, Ark., for improvements to United States Reservation; will ask for appropriation; plans include building or improving roads, bridges, storm and sanitary sewers, buildings, greenhouses, monuments, retaining walls, landscape work, etc.; approximate expenditure \$2,000,000.

D. C., Anacostia.—Magazine.—Bureau of Yards and Docks, Navy Dept., Washington, receives bids until May 20 to erect magazine building; specification No. 2954; cost \$2500. (Lately noted.)

Fla., Pensacola.—Barracks.—Bureau of Yards and Docks, Navy Department, Washington, D. C., will construct barracks for 300 men; estimated cost \$72,000; bids received until May 13. (Lately noted.)

Ga., Aragon.—Postoffice.—Aragon Mills will erect postoffice building, etc. (See Schools.)

Md., Bethesda.—Laboratory.—United States Department of Agriculture, Washington, D. C., receives bids until May 17 to erect concrete and frame laboratory building at United States Experiment Station; plans and specifications at office Property Clerk, Bureau of Animal Industry, Room 1, 710 E St. N. W., Washington.

Okla., Bartlesville.—Bureau of Mines.—J. O. Lewis, Supt. Bureau of Mines, receives bids until May 24 for furnishing material and constructing 2 buildings; cost \$30,000; Keene & Simpson, Architects, 400 Reliance Bldg., Kansas City, Mo.

Tex., Paris.—Postoffice and Courthouse.—Treasury Dept., Jas. A. Wetmore, Act. Supervising Archt., Washington, D. C., opened bids to erect postoffice and courthouse; W. O'Neill & Son Co., Faribault, Minn., is low bidder at \$120,990. (Previously noted.)

Tex., Waco.—Warehouses.—War Dept., Washington, D. C., will erect warehouse for reclamation division at Camp MacArthur; cost \$40,000.

Va., Hampton Roads.—School.—Bureau of Yards and Docks, Navy Department, Washington, D. C., will erect mechanics' school; bids received until May 13.

Va., Hampton Roads.—Emergency Hospital. Bureau of Yards and Docks, Navy Dept., Washington, D. C., opened bids to erect emergency hospital at naval operating base; Austin Company, 1313 H St. N. W., Washington, D. C., is low bidder at \$89,000. (See Hospitals.)

Va., Norfolk.—Clubhouse.—Camp Community Service, Montague Gammon, Director, has plans by Benjamin F. Mitchell, Norfolk, for remodeling Nash building for Army and Navy Club; plans include removing partitions on first and second floors; removing posts and girders on 3 floors; filling in elevator shafts on second and third floors; building fireplace and chimney and all new partitions; lining walls and ceiling on second and third floors with studding; covering all walls with Compo board and strips; new flooring on first and second floors; erect fire escape; hoisting elevator to fourth floor; lunch counter, general office and soft-drink counter on first floor, to be lined with studding; bids received by architect until May 18. (Lately noted.)

Va., Roanoke.—Postoffice.—Treasury Dept., James A. Wetmore, Act. Supervising Archt., Washington, D. C., will improve postoffice to include interior alterations, install 40 additional lock boxes, widening and improving driveway, construction of granolithic walk, remodeling heating and plumbing system, etc.; Mr. Davis, Postmaster.

Va., Norfolk.—Clubhouse.—Camp Community Service, Montague Gammon, Director, has plans by Benjamin F. Mitchell, Norfolk, for remodeling Nash building for Army and Navy Club; plans include removing partitions on first and second floors; removing posts and girders on 3 floors; filling in elevator shafts on second and third floors; building fireplace and chimney and all new partitions; lining walls and ceiling on second and third floors with studding; covering all walls with Compo board and strips; new flooring on first and second floors; erect fire escape; hoisting elevator to fourth floor; lunch counter, general office and soft-drink counter on first floor, to be lined with studding; bids received by architect until May 18. (Lately noted.)

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HOSPITALS, SANITARIUMS, ETC.

Ark., Little Rock.—Hospital Board will soon call for bids to erect proposed City Hospital unit; will erect one of 3 alternatives: Four-story building at estimated cost of \$130,000; 3-story building at cost of \$100,000 or 4-story building with 4th story incomplete; fireproof; concrete and brick; stone and terra-cotta trimmings; elevators; sun parlors on all floors; John P. Almand, Archt., Little Rock. (Previously noted.)

Ky., Paducah.—Illinois Central Ry. Co., A. S. Baldwin, Chief Engr., Chicago, it is reported, will soon let contract to erect hospital to replace structure damaged by fire; brick and stone; about 200x57 ft.; fireproof; steam heat; plans by D. F. McLaughlin of company; will also erect roundhouse; total cost about \$300,000. (Previously noted.)

Md., Catonsville.—Spring Grove State Hospital has plans by Josias Pennington, 601-7 Professional Bldg., Baltimore, for hospital building; stone; slate roof; concrete floors; indirect blower heating system; electric lights and elevator; cost \$125,000. (Lately noted.)

N. C., Sanitarium.—Rowan County Commissioners, Salisbury, plan to erect Rowan building at North Carolina Sanitarium for Treatment of Tuberculosis; Drs. A. J. Warren and R. V. Brawley, Committee.

Okla., Muskogee.—Okmulgee Baptist Hospital will enlarge hospital; cost about \$50,000; Rev. A. N. Hall, Pastor First Baptist Church, is interested.

Okla., Oklahoma City.—Baptist Hospital will erect addition to building.

Tenn., Dyersburg.—Dyersburg Hospital Co. Incptd. with \$15,000 capital by Drs. W. P. Watson, J. G. Price, A. H. Moody and others; acquired East Court Inn and will expend \$4000 to improve and equip for 60-bed hospital; W. E. Brodyen, Archt., Dyersburg.

Tex., Wichita Falls.—State will have plans by C. H. Page & Bro., Austin, Tex., for Northwest Texas Insane Asylum, ready in about 15 days; has \$375,000 appropriation. (Previously noted.)

Va., Hampton Roads.—Bureau of Yards and Docks, Navy Dept., Washington, D. C., opened bids to erect emergency hospital at naval operating base; Austin Company, 1313 H St. N. W., Washington, D. C., is low bidder at \$89,000.

HOTELS

Ark., Siloam Springs.—Ad Club Committee is interested in erection of \$20,000 hotel on Morris Hotel property.

Fla., Fort Lauderdale.—Broward Hotel Co., C. J. Joiner, Secy., will erect tourist hotel on Andrews Ave. south of Ocean Blvd.; 99 rooms; concrete and hollow tile; built-up roof; concrete floor construction; steam heat; city lighting (Southern Utilities Co.); cost \$100,000; August Geiger, Archt., Miami; contemplated completion Jan. 1. (Lately noted.)

Ga., Atlanta.—Frank G. Corker, Dublin, Ga., advises Manufacturers Record that he will not build 14-story addition to Cecil Hotel. (Previously noted.)

Mo., St. Louis.—Croesus Improvement Co., S. Hamburg, Prest., 5100 Kensington Ave., is reported having plans prepared by P. J. Bradshaw, 514 International Life Bldg., St. Louis, for apartment hotel; 3 stories; 50x260 ft.; cost \$400,000.

N. C., Charlotte.—Fosdick Comsn., Washington, D. C., leased old Presbyterian Hospital and will remodel for soldiers' hotel; construction under supervision of Robert Lassiter, Chrmn.

Okla., Billings.—Commercial Club plans to erect hotel; 3 or 4 stories; brick; cost about \$75,000.

Okla., Bristow.—T. B. Gibson and C. G. Beaver are promoting erection of hotel.

Okla., Coalgate.—March & Greenan will remodel Morgan Hotel; probably install steam-heating plant; cost \$3000.

Okla., Henryetta.—Chamber of Commerce is interested in erection of \$150,000 hotel.

Okla., Miami.—Baird & Stone will erect hotel.

Tex., Cisco.—G. W. and C. H. Daniels have plans by R. S. Glenn, Abilene, Tex., for hotel; 60x115 ft.; brick and concrete; tar and gravel roof; concrete floors; cost \$20,000; construction by day labor under architect, who may be addressed. (Lately noted.)

Tex., Corsicana.—Chamber of Commerce is promoting erection of hotel.

W. Va., Dunbar.—Dave Rollin purchased Dunbar Realty Co.'s office building and will remodel and enlarge for hotel.

W. Va., St. Albans.—First National Bank and St. Albans Hotel rejected all bids to erect hotel and bank building and deferred erection of building indefinitely; plans by W. B. Camp, Charleston, W. Va., call for 5-story structure 100x116 ft.; fireproof; Barrett specification roof; hollow-tile floors with reinforced joist; vacuum steam heat; electric lights; 2 passenger elevators; cost \$100,000. (Previously noted.)

MISCELLANEOUS

Fla., Miami.—Cafeteria.—Walter H. Nichols and Phillip Ulendoff have plans by Geo. L. Pfeiffer, Lemon City, Fla., for business building; occupied in part by Weir & Starr, Chautauqua, N. Y., as cafeteria; construction under supervision of V. E. Lewis, Miami. (See Stores.)

Md., Baltimore.—Laboratory and Administration Building.—Rockefeller Foundation, New York, is having plans prepared by Archer & Allen, Central Savings Bank Bldg., Baltimore, for laboratory and administration building at Lombard and Greene Sts.; plans probably ready for bidders in about a week.

Md., Feagville, R. D. from Frederick—Barn.—Claude Hargett will rebuild barn noted damaged by fire at loss of \$3500 to \$4000.

Miss., Greenwood.—Orphanage.—Connie Maxwell Orphanage will erect domestic science building; G. B. Buell, Prest., Board of Trustees.

Mo., St. Louis.—Gymnasium.—Olympia Turnverein has permit to repair gymnasium; cost \$2000.

N. C., Charlotte.—Orphanage.—Thompson Orphanage will erect Bronson Memorial cottage; Mrs. R. B. Rainey is interested.

Va., Covington.—Home.—Industrial School and Farm for Homeless Boys, Rev. George Floyd Rogers, Prest., will erect addition to home; estimated cost \$25,000.

Va., Norfolk.—Clubhouse.—Camp Community Service, Montague Gammon, Director, has plans by Benjamin F. Mitchell, Norfolk, for remodeling Nash building for Army and Navy Club; bids received until May 18. (See Government and State.)

RAILWAY STATIONS, SHEDS, ETC.

Ala., Huntsville.—Southern Railway Co., B. Herman, Chief Engr., M. W. & S. Lines East, Charlotte, N. C., will enlarge freight depot.

Va., Newport News.—Chesapeake & Ohio Ry. Co., F. I. Cabell, Chief Engr., Richmond, Va., will erect passenger station at Hilton.

SCHOOLS

Ala., Anniston.—School Trustees will rebuild school building at Oxford Cotton Mill, previously noted damaged by fire.

Ala., Birmingham.—City voted \$1,000,000 bonds to rebuild and equip Central High School and Eastern High School, and purchase additional sites; Eastern High School to accommodate 2500; fireproof; also voted additional tax for public school purposes; C. B. Lloyd, Secy. City Comsn. (Lately noted.)

Ala., Fairfield.—Fairfield School Dist. plans to erect school building. Address Dist. School Trustees.

Ala., Pike Road.—Montgomery County Board of Education, W. F. Feagin, Supt., receives bids until May 20 to erect 1-story brick school building; plans and specifications at office Frederick Ausfeld, Archt., Bell Bldg., Montgomery, Ala.

Ala., Pratt City.—Board of Education, Birmingham, will erect addition to and repair school building previously noted damaged by fire; plans and specifications at office D. O. Whildin, Archt., 501-2 Title Guarantee Bldg., Birmingham. (Previously noted.)

Ala., Sardis.—Jefferson County Board of Education will erect teachers' cottage; N. R. Baker, Supt.

Fla., Baldwin.—School Board of Duval County, Jacksonville, has plans by Rutledge Holmes, Jacksonville, for school building; 75x130 ft.; common brick; wood floors; cost \$15,000; heating, \$1500; bids opened in about 50 days and construction begins in about 90 days. Address architect: Baldwin School Dist. votes June 11 on \$12,000 bonds to erect school.

Fla., Titusville.—Special School Tax Dist. No. 4 is considering issuing \$75,000 bonds to erect, enlarge and equip school buildings; S. J. Overstreet, Secy., Brevard County Board of Public Instruction.

Ga., Aragon.—Aragon Mills will erect school building; 2 stories; also erect post-office building and addition to store.

Ga., Athens.—City of Athens and Clarke County will vote on \$6000 bonds to erect barracks and mess hall on Lucas Hill, and \$75,000 bonds to erect group of dormitories and dining hall on Lumpkin Hill. Address Mayor and County Commrs.

Ky., Nebo.—Hopkins County Board of Education, Madisonville, Ky., will erect 2-room school building; 24x34 ft.; frame; shingle roof; pine floors; stoves; cost \$2000.

Md., Hancock.—Washington County School Board, Chas. A. Weigley, Prest., Hagerstown, Md., will erect 2-room consolidated school building; cost \$3000.

Md., Rohrsville.—Washington County School Board, Chas. A. Weigley, Prest., Hagerstown, Md., will erect school building.

Miss., Anguilla.—Anguilla Consolidated School Dist. Trustees, H. C. Greer, Secy., receive bids until May 31 to erect school building; flat built-up roof; steam heat; cost \$20,000. (Lately noted.)

Miss., Carthage.—Leake County School Board will erect agricultural school building.

Miss., Columbia.—Trustees Mississippi Industrial and Training School receive bids until May 17 to erect 4 buildings; bids on buildings complete, with electrical wiring, plumbing and heating; separate bids on furniture, laundry, electric plant, fencing and equipment; plans and specifications at office L. C. Franklin, Prest., Clarksdale, Miss.; Prof. W. Jacobs, Supt., Arcade Hotel Bldg., Columbia, and Xavier A. Kramer, Archt. and Const. Engr., Magnolia, Miss. (Lately noted.)

Miss., Columbia.—City receives bids until May 24 to repair partially burned high school; cost about \$15,000; Raymond B. Spencer, Archt., Jackson, Miss. (Previously noted.)

Miss., Ittawebau.—School Board is having plans prepared by M. M. Alsop, Clarksdale, Miss., for \$12,000 addition to school building.

Miss., Jackson.—Belhove College, Rev. W. H. Frazier, Prest., will erect dormitory; cost \$25,000.

N. C., Calypso.—School Trustees have plans by H. E. Bonitz, Wilmington, N. C., for school building; brick; stone trim; warm-air heat; cost \$35,000; contract to be let about June 20; J. T. Albritton, Chrmn. Building Committee.

N. C., Dallas.—Town voted \$40,000 bonds to erect school building. Address The Mayor. (Previously noted.)

N. C., Whitsett.—Whitsett Public School Dist. voted \$10,000 bonds to erect school building. Address Dist. School Trustees. (Previously noted.)

N. C., Wilmington.—New Hanover County voted tax and \$250,000 bond issue to include \$125,000 to erect high school, \$15,000 to erect addition to present high school, \$10,000 for additions to Williston School and for other school improvements, principally in county; W. A. McGirt, Chrmn. Board of Commrs. (Lately noted.)

N. C., Nebo.—Nebo High School Dist. voted \$20,000 bonds to erect building. Address Dist. School Trustees.

Okla., Cornish.—Ringling-Cornish School Dist. is considering issuing \$10,000 bonds to erect school building to replace structure previously noted damaged by fire. Address Dist. School Trustees. (Previously noted.)

Okla., Dewar.—Dewar School Dist. is considering erecting 4-room brick or stone school; cost \$10,000 or \$15,000; probably vote in July on bonds; Mrs. Anna B. Coleman, Clerk of School Board.

Okla., Stillwater.—State Board of Agriculture, F. M. Gault, Prest., Capitol Bldg., Oklahoma City, receives bids until June 4 to erect 2 buildings at Agricultural and Mechanical College; separate bids on plumbing and heating; general contract includes excavation, masonry, carpentry, steel and iron work, sheet metal, etc., and electrical work; fireproof; steel trusses for roof; concrete floors; cost about \$200,000; plans and specifications at office F. W. Redlich, Archt., Stillwater. (Lately noted to open bids May 2.)

S. C., Abbeville.—Campbell Public School Dist. votes May 11 on \$4000 school bonds; S. M. Beatty, J. A. Campbell and W. B. Mann, Board of Trustees.

S. C., Bishopville.—Central School Dist. No. 7 of Lee County votes May 20 on \$4000 bonds to erect and furnish school building; B. W. Segars, Chrmn. Board of Trustees.

Tex., Blythe.—Blythe Public School Dist. votes May 20 on \$10,000 bonds to build brick school. Address Dist. School Trustees.

Tex., Cleburne.—Island Grove, Center League and Crill Miller School Dist. voted \$5000, \$3000 and \$4000 school bonds, respectively. Address Johnson County School Trustees, Cleburne.

Tex., El Paso.—M. L. Cardona has permit to erect brick school at 64 Margoffin St.; cost \$12,000.

Va., Hampton Roads.—Bureau of Yards and Docks, Navy Department, Washington, D. C., will erect mechanics' school; bids received until May 13. (See Government and State.)

Va., Norfolk.—Buildings and Property Committee will recommend to City School Board erection of 2 fireproof schools at Colonial Plane and Lamberts, and 12-room annex to Lott Cary School; approximate cost \$200,000.

W. Va., Littleton.—Board of Education of Clay Dist. has plans by Holmboe & Lafferty, Clarksburg, W. Va., for school; brick; slate roof; wood floors; steam heat; cost \$12,000; bids opened May 25. (Previously noted.)

STORES

Ark., Glenwood.—Glenwood Mercantile Co. incptd. with \$40,000 capital; will erect 2-story brick building.

D. C., Washington.—John W. Shaver has plans by John Weber to erect 1-story brick building, 4103 Keokuk St. N. W.; cost \$5600.

Fla., Miami.—Walter H. Nichols and Philip Ullendorff have plans by George L. Pfeiffer, Lemon City, Fla., for business building at 12th St. and Ave. D; 1 story; 55x120 ft.; pressed brick front; concrete skeleton and walls; built-up composition roof; wood floors on concrete; cost \$12,000; divided into 2 parts; one to be occupied by E. L. Brady & Co. as grocery store; other by Weir & Starr, Chautauqua, N. Y., as cafeteria; construction under supervision of V. E. Lewis, Miami. (Lately noted.)

Fla., Miami.—Maire Bros., Lima, O., do not contemplate erecting any building at this time. (Lately noted to erect business building.)

Fla., Ybor City.—(Ind. Sta. Tampa).—S. H. Kress & Co., H. J. Powell, Local Mgr., will rebuild store noted damaged by fire at loss of \$15,000.

Ga., Aragon.—Aragon Mills will erect addition to store, etc. (See Schools.)

Ga., Columbus.—Heck Brothers Grocery Co. purchased 2-story brick building and will improve structure.

Ga., Columbus.—Rothschild & Sons purchased building and will remodel.

Ga., Columbus.—Piggly Wiggly Stores is having plans prepared by T. W. & E. O. Smith, Columbus, for grocery store.

Ky., Louisville.—Otis Hidden Co. has permit for repairs to building at 117 S. 10th St.; cost \$5000.

Mo., Kansas City.—R. H. Williams, V.P. of Security National Bank, is reported to erect business building.

Mo., St. Louis.—Addisons Cloak & Suit Co. leased building at 517-19 Washington Ave. and will remodel for store.

Mo., St. Louis.—Depot Realty Co. will alter store building at 7 N. 18th St.; cost \$2000.

Mo., St. Louis.—Wehler & Traber will erect addition to storeroom at 919-21 Benton St.; cost \$3000.

Okla., Duncan.—A. Forbes will erect brick business building.

Okla., Guthrie.—S. H. Kress & Co., 350 Broadway, New York, will rebuild store at cost of \$12,000.

Okla., Sulphur.—J. D. Ramsey will erect business building.

Okla., Sulphur.—J. Hassen will erect business and office building.

Okla., Norman.—H. W. Stubbleman will erect 2-story \$4000 residence.

Okla., Yale.—L. G. Lewis, H. Cleveland and J. W. Flint will erect business building.

Tex., Galveston.—J. Linger has plans by Prueger & Dixon, Victoria, Tex., for store building 50x80 ft. with 20x70-ft. annex; ordinary construction; brick walls; wood ceilings and floors; composition roof; cost \$10,000; owner will purchase materials and construct by day labor.

Tex., Dallas.—I. Goldsmith will erect store building; 3 stories and basement; fireproof; 5000 sq. ft. floor space.

Tex., Del Rio.—A. Madison will erect concrete business building; cost \$25,000.

THEATERS

Fla., Jacksonville.—Hiawatha Company has plans by R. A. Benjamin, Jacksonville, for theatre at Forsyth & Ocean Sts.; 35x105 ft.; fireproof; composition roof; concrete slab floor construction; cost \$100,000; work (probably on cost plus basis) begins within 30 days. (S. A. Lynch Enterprise, Inc., and J. W. Spratt lately noted to erect this structure.)

Ga., Augusta.—S. A. Lynch, Jacksonville, Fla., is reported to erect moving-picture theatre; cost \$15,000.

La., New Orleans.—Orpheum Theater & Realty Co., Martin Beck, Managing Director, Palace Theater, New York, is reported, will soon begin erection of Orpheum Theater in University Place; reinforced concrete; steel girders; 120x108 ft.; stage, 36x120 ft.; elevator to balcony and gallery; sent 2300; cost \$300,000; Albert Lansburg, Archt., 706

Mission St., San Francisco, Cal. (Previously noted.)

Miss., Clarksdale.—Sommers & Landry are having plans prepared by M. M. Alsop, Clarksdale, for moving-picture theater; cost \$6000.

Mo., Kansas City.—J. F. Brady, 122 N. Clinton St., is reported planning to erect \$300,000 theater building; reinforced concrete, steel, brick and terra-cotta.

Okla., Sulphur.—J. D. Ramsey will erect building to replace burned structure; probably 2 stories; lower floor, theater; upper floor, probably apartments; L. H. Frier, Sulphur, may get contract.

WAREHOUSES

Fla., Miami.—Roy C. Wright, 337 Eleventh St., has plans by John H. Sculthorpe, 135 Eighth St., Miami, for warehouse; 50x115 ft.; reinforced concrete; 4-ply roofing; tongue and groove flooring; cost \$8000; construction by owner. (Lately noted.)

Ky., Lexington.—New Silas Shelburne Warehouse Co. will erect 60x340 ft. addition to warehouse; cost \$25,000.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Mo., St. Louis.—A. Lencke let contract to R. Arnold, St. Louis, to erect 2-story tenement; cost \$4500.

S. C., Columbia.—B. B. Kirkland let contract to C. M. Lide, Columbia, to erect apartment-house; 3 stories; 6 suites of 7 rooms each; brick; granite trim; vacuum cleaning system; cost \$40,000.

ASSOCIATION AND FRATERNAL

Mo., St. Louis.—Knights of Columbus, Robt. M. Uxa, Camp Gen. Secy., let contract to erect alldrome at Jefferson Barracks; 120x60 ft.; platform 24 sq. ft.; construction under supervision of Wm. Moriarty.

N. C., Azalea.—War Dept., Washington, D. C., let contract to Gude & Co., Atlanta, Ga., to erect tubercular sanitarium to cost \$1,500,000; plans include Y. M. C. A. building, Red Cross building, etc.; Capt. T. Boyd, Archt., Surgeon-General's office, Washington. (See Hospitals.)

BANK AND OFFICE

D. C., Washington.—National Savings & Trust Co., let contract to Jas. L. Parsons, Jr., Munsey Bldg., to repair building, 705 Fifteenth St. N. W.; cost \$375; National Show Case Co., Archt.

Tenn., Union City.—Third National Bank let contract to E. G. Parish, Jackson, Tenn., to remodel bank buildings; stone; composition built-up roofing; tile floors; steam heat; cost \$15,000; R. A. Heavner, Archt., Jackson.

Tenn., Nashville.—Nashville, Chattanooga & St. Louis Ry., H. McDonald, Chief Engr., will enlarge office space; erect extension 50x75 ft.; brick; stone foundation; composition roof; tongue and groove flooring; cost \$16,000; contract let. (See Railway Stations, Sheds, etc.)

CHURCHES

Ga., Lagrange.—Church of the Good Shepherd, Rev. R. T. Phillips, let contract to La Grange Lumber & Supply Co., La Grange, to erect 2 frame churches and frame rectory; total cost \$20,000.

Ga., Lagrange.—First Methodist Episcopal Church let contract to La Grange Lumber & Supply Co., La Grange, to remodel and enlarge building; press brick construction; metal roof; steam heat; electric lights; cost \$12,000; A. F. N. Everett, Archt., Grand Bldg., Atlanta. (Previously noted.)

Ky., Hickman.—Christian Church, E. L. Milley and O. C. Henry, Committee, let contract to Richard Clappitt, Richmond, Ind., to erect building; 53x71 ft.; brick and tile; asphalt roof; pine flooring; cost \$15,000; hot-air heat, \$500; A. A. Honeywell, Archt., Kokomo, Ind. (Lately noted.)

Ky., Austin.—University Baptist Church let contract to J. F. Johnson, Austin, to erect building; brick, concrete and stucco; tile roof; wood floors; first unit to cost \$46,000; Chas. E. Maddy, Chrmn. Building Committee; Albert Kelsey, Archt., Austin. (Lately noted.)

Tex., Waco.—Baptist Church let contract to erect amphitheater adjoining Baptist tabernacle in Section C, Camp MacArthur;

N. C., Charlotte.—Southern Spindle & Flyer Co. will erect warehouse.

S. C., Loris.—Farmers' Tobacco & Storage Warehouse Co. incptd. with \$15,000 capital; Dan W. Hardwick, Prest.; W. L. Rhodes, V.P.; Ed. L. Smith, Secy.-Treas.

Tex., Decatur.—Lillard Milling Co. will erect concrete warehouse.

Tex., El Paso.—El Paso County has plans by Trost & Trost, 518 Mills Bldg., El Paso, for warehouses. (See City and County.)

Tex., San Antonio.—Webster Co. has plans by A. J. Wernette for 3 warehouses on Seguin St.; 214x216 ft., 239x200 ft. and 173x200 ft.; tile and brick; galvanized-iron roof; cement floors; construction begun. (Webster Co. lately noted having contract to erect warehouses for War Dept., Washington, D. C.)

Tex., Waco.—War Dept., Washington, D. C., will erect warehouse for reclamation division at Camp MacArthur. (See Government and State.)

W. Va., Dunbar.—Dunbar Realty Co. will erect office building and warehouse. (See Bank and Office.)

seating capacity 2000; also plans to erect amphitheater at some other point in camp; Dr. C. B. McCall, camp pastor.

Va., Newport News.—United States Shipping Board, Emergency Fleet Corp., J. Rogers Flannery, Director of Housing, Washington, D. C., let contract to Mellon-Stuart Co., Pittsburgh, Pa., to further develop village of Hilton to house employees at shipyards; plans include churches, dwellings, business buildings, etc. (See Government and State.)

CITY AND COUNTY

La., Gretna.—Jail, etc.—City, Chas. F. Gelboke, Mayor, let contract at \$5666 to I. S. West, New Orleans, to erect jail, warehouse and road machine garage; brick, iron and frame; 1 story; 27x57 ft.; Jno. F. Charlton, Archt., 730 Gravier St., New Orleans. (Lately noted.)

Mo., Little Blue.—Home.—Jackson County let contract to Edelman & Fleming Construction Co., Kansas City, to erect Negro Home for Aged and Infirm; cost \$44,295; also let contract at \$7295 to Friel & Foley, Kansas City, for heating; White & Dean, Archts., 311 Bellefontaine, Kansas City, Mo. Address County Court, Kansas City. (Previously noted.)

Tex., El Paso.—Coal Shed.—El Paso County let contract to J. E. Morgan, El Paso, to erect coal shed; brick; 120x30 ft.; capacity 800 tons; cost \$3598.

Tex., Gainesville.—Fire Station and Prison.—City let contract to L. R. Wright Construction Co., 311 Andrews Bldg., Dallas, to erect fire station; 76.8x50 ft.; brick; tile backing; Johns-Manville roofing; cost \$15,435; lighting \$149; E. O. Taylor, Archt., Southwestern Life Bldg., Dallas. (Lately noted.)

DWELLINGS

Ark., Pine Bluff.—Marion Brown let contract to Will Eubanks to erect residence; 2 stories; frame; metal shingle roof; mill floor construction; cost \$800; hot air heat, \$450; C. S. Curtis, Archt., Paris, Tex.; owner will purchase materials.

D. C., Washington.—Hawkins Restaurant Co. let contract to Arthur M. Poynton, 715 Fourteenth St. N. W., Washington, to repair dwelling, 1413 New York Ave.; cost \$6000.

Fla., Live Oak.—C. L. Bussy let contract to erect bungalow to replace burned structure.

Fla., Miami.—C. H. Neeb let contract to A. D. Bryant, Miami, to erect dwelling; 52x26 ft.; concrete; Slatekote roofing shingles; Georgia pine floors; fireplace; electric lights; cost \$7500; W. H. Stevens, Archt., Winona, Minn. (Lately noted.)

Fla., St. Petersburg.—H. J. Winchell has contract to erect bungalow on Third Ave.

Fla., Vero.—A. E. Sueverkruebbe has plans by and let contract to Travis & Wollen, Vero, to erect residence; 42x30 ft.; 1 story; frame and floored attic; composition slate surface roof; wood floors; cost \$3000; Delco lighting system, \$350. (Lately noted.)

Ga., Augusta.—L. H. Hankinson, R. F. D. No. 3, Augusta, let contract to A. M. Banks, 1708 Fenwick St., Augusta, to erect residence; 8 rooms; hollow tile and stucco;

composition roof; yellow pine floors; electric lights; cost \$6100; Bleckley & Irvin, Archts., Lamar Bldg., Augusta. (Lately noted.)

Ga., Lagrange.—Elm City Cotton Mills let contract to Lagrange Lumber & Supply Co., Lagrange, to erect 5-room frame bungalow and brick electric laundry building; total cost \$6500.

Ga., Macon.—S. S. Dunlap let contract to W. D. Griffin, Macon, to remodel residence; wood; metal roof; wood floors; cost \$3000. (Lately noted.)

Ky., Louisville.—Consolidated Realty Co. let contract to General Construction Co., 401 Inter-Southern Bldg., Louisville, to erect stucco dwelling, 1719 Windsor Pl.; 35½x34 ft.; tile roof; wood floors; cost \$5000; hot-air heat, \$500; electric lights \$200; Heatt Bros., Archts., Louisville.

Miss., Clarksdale.—Henry T. Allen, Lyon, Miss., let contract to Estes & Williams, Clarksdale, to erect dwelling; frame; Garden City Sand Co.'s stone coat stucco exterior; composition roof; brick terraces and front entrances to have composition ornamental trimmings; interior quartered red gum trim; hardwood floors.

Miss., Stovall.—Mrs. Wm. H. Stovall let contract to Estes & Williams, Clarksdale, Miss., for improvements on farm, to include several managers' houses, feed barns, grain storage barn, hay storage buildings, implement and wagon storage-houses, etc.; cost several thousand dollars.

Mo., St. Louis.—W. K. Richardson let contract to Thos. Ridwell, St. Louis, to erect two 2-story dwellings; cost \$5000.

N. C., Charlotte.—Murphy & Short let contract to J. D. Stroupe, Charlotte, to erect 2 residences; cost \$3000 each.

N. C., Greensboro.—Banks-Richardson Co. let contract to Lanning & Coe, Greensboro, to erect residence; 7 rooms; frame; shingle roof; hardwood floors; Farquar heating plant; cost \$4000. Address Owner. (Lately noted.)

N. C., Leaksville.—Carolina Cotton & Wools Mills Co. let contract to Mr. Jones to erect boarding-house for employees at Rhode Island Mills.

N. C., Rockingham.—Steele's Mills let contract to Simmons, Hartenstein & Whitton, Inc., Charlotte, N. C., to erect operative houses; total cost \$20,000.

N. C., Rockingham.—Hannah Pickett Mills let contract to Simmons, Hartenstein & Whitton, Inc., N. C., to erect number of operative houses.

N. C., Winston-Salem.—S. C. Ripple let contract to J. E. Kennerly, Winston-Salem, to erect dwelling.

Okla., Conlgate.—F. Zweigle let contract to Long & Co., Conlgate, to erect brick residence; probably steam heat; cost \$4000.

Okla., Norman.—R. W. Muldrow let contract to J. T. Knighton, Norman, to erect \$2500 residence.

Okla., Oklahoma City.—M. Cox let contract to S. Davis, Oklahoma City, to erect residence; 1-story frame; cost \$2800.

Okla., Oklahoma City.—Mr. Reed let contract to John McKinney, 1308 W. 11th St., Oklahoma City, to erect dwelling; 2 stories; 26x30 ft.; frame; shingle roof; wood floors; cost \$4000; heating plant, \$150; lighting, \$100. (Lately noted.)

Okla., Oklahoma City.—W. D. Washburn let contract to O. White, Oklahoma City, to erect 1-story \$3000 frame residence.

Okla., Oklahoma City.—Mrs. Miller let contract to E. N. Redman, Oklahoma City, to erect 1-story frame residence; cost \$3000.

Okla., Oklahoma City.—W. Klein let contract to R. R. Matchley, Oklahoma City, to erect 1-story frame residence; cost \$3600.

S. C., Rock Hill.—Dr. Alexander Martin let contract to E. S. Wallace to erect 11-room bungalow.

Tex., Amarillo.—F. Kendall let contract to G. Parr, Amarillo, to erect \$5000 residence.

Tex., Amarillo.—Austin & Williams let contract to J. M. Teague, Amarillo, to erect 2 dwellings; cost \$3000 each.

Tex., Amarillo.—G. J. Nunn let contract to J. D. Anderson, Amarillo, to erect \$3500 residence.

Tex., Amarillo.—F. M. Huss let contract to J. D. Anderson, Amarillo, to erect \$4250 residence.

Tex., Amarillo.—C. R. Garmer let contract to A. P. Hope, Amarillo, to erect \$13,000 brick residence.

Tex., Beaumont.—C. E. Wade let contract to J. J. Pilgreen, Beaumont, to erect 5-room bungalow; cost \$2500.

Tex., Beaumont.—R. Tevis let contract to J. E. Heartfield, Beaumont, to erect residence; 5 rooms; cost \$2700.

Tex., Beaumont.—W. A. Brown let contract to Interstate Realty Co., Beaumont, to erect residence; 5 rooms; cost \$2500; C. A. Logan, Archt., Beaumont.

Tex., Beaumont.—A. R. Kriebbaum let contract to Rutt Home Builders, Beaumont, to erect residence and garage; cost \$2500.

Tex., Beaumont.—L. R. Ness let contract to Rutt Home Builders, Beaumont, to erect residence; cost \$2500.

Tex., Ennis.—R. Matthews let contract to F. V. Lauderdale, Ennis, to erect residence; 2 stories and basement.

Tex., Beaumont.—A. Bleeden let contract to J. J. Pillgreen, Beaumont, to erect 2-story frame residence; cost \$4500; C. A. Logan, Archt., Beaumont.

Tex., Beaumont.—Miss T. J. Henry let contract to Rutt Home Builders, Beaumont, to erect \$2900 residence; 5 rooms; tile roof.

Tex., Beaumont.—J. R. Callaghan let contract to J. Gebbia, Beaumont, to build 3 five-room dwellings; cost \$6000.

Va., Newport News.—Jas. M. Cunningham let contracts to erect twenty 8-room 2-story dwellings on Columbia Ave.; cost \$45,000.

Va., Newport News.—United States Shipping Board, Emergency Fleet Corp., J. Rogers Flannery, Director of Housing, Washington, D. C., let contract to Mellon-Stuart Co., Pittsburgh, Pa., to erect 500 dwellings, etc., in connection with development of Hilton for shipyard employees. (See Government and State.)

Va., Newport News.—Dwellings, etc.—United States Shipping Board, Emergency Fleet Corp., J. Rogers Flannery, Director of Housing, 1319 F St., Washington, D. C., let contract to Mellon-Stuart Co., Pittsburgh, Pa., to further develop village of Hilton, ½ mi. from Newport News to house employees at shipyards; plans include 500 dwellings, single and double; frame and stucco; slate roofs; also churches, schools, business buildings, park, shops, railway station, athletic field, etc.; lighting; sewerage and drainage systems; extension of street railway system from Newport News; granolithic sidewalks; paved streets, some to have parkways in center. (Lately noted.)

GOVERNMENT AND STATE

D. C., Washington.—Hospital.—Dept. of Interior, S. G. Hopkins, Asst. Secy., let contract at \$150,700 to Oscawanna Building Co., 101 Park Ave., New York, to erect ward buildings, dining hall and kitchen for St. Elizabeth's Hospital. (See Hospitals.)

Fla., Pensacola.—Storehouse.—Bureau of Yards and Docks, Navy Department, Washington, D. C., let contract at \$30,330 to Austin Company, 1313 H St., Washington, to erect storehouse for dirigible equipment at Naval Air Station. (Lately noted.)

Ga., Tybee.—Barracks, Etc.—War Department, Washington, D. C., let contract to Carson Construction Co., Savannah, to build all coast defenses for Georgia; first work includes additional barracks, quarters, etc., at Fort Screven; cost plus basis.

Mo., St. Louis.—Airdrome.—Knights of Columbus, Robt. M. Uxa, Camp Gen. Secy., let contract to erect airdrome at Jefferson Barracks; construction under supervision of Wm. Moriarty. (See Government and State.)

S. C., Charleston.—Terminals.—War Dept., Washington, D. C., let contract to Mason & Hanger, Richmond, Ky., to build terminals and warehouses; plans include concrete piers and warehouses and ammunition depots; deepen channels to 40 ft. at low water from Charleston Navy Yard to the sea and build \$4,000,000 dry dock at Navy Yard; piers with frontage of 3000 to 5000 ft.; cost \$25,000; same firm has contract and is erecting remount station at North Charleston; initial capacity 10,000 animals to probably be enlarged for 10,000 additional animals; plans call for warehouses; horse hospital, barracks for men; reported to require 5,000,000 ft. lumber. (Lately noted.)

S. C., Greenville.—Warehouses, etc.—War Dept., Washington, D. C., will erect 4 new quartermaster warehouses at Camp Sevier; construct sewerage system, septic tank and filter style (4 separate units); build 75,000-gal. tank on 75-ft. steel tower to increase water pressure, also increase number of hydrants, build refrigerating and ice-making plant (2 units each with capacity 40 tons ice daily); J. E. Shirrine, Engr., and J. F. Gallivan Building Co., Contr., both of Greenville.

HOSPITALS, SANITARIUMS, ETC.

D. C., Washington.—Dept. of Interior, S. G. Hopkins, Asst. Secy., let contract at \$150,700 to Oscawanna Building Co., 101 Park Ave., New York, to erect ward buildings, dining hall and kitchen for St. Elizabeth's Hospital. (Lately noted.)

Fla., Formosa.—Florida Sanitarium let contract to J. B. Currier, Orlando, Fla., for sanitarium building; 3 stories; 34x210 ft.; wood with cement block veneer; flat roof with layer composition; wood floors; city lighting; cost \$20,000; heating \$3000; elevators, about \$2000; D. Matthews, Archt., Orlando. Address L. T. Crisler, Drawer 1100, Orlando. (See Machinery Wanted—Boiler; Pump; Building Materials; Roofing; Hardware; Heating Equipment; Pipe and Fittings.)

N. C., Azalea.—War Department, Washington, D. C., let contract to Gude & Co., Atlanta, to erect tuberculosis sanitarium to cost about \$1,500,000; accommodations for about 1000 soldiers; 68 buildings, including administration building, home for nurses, central store, chapels, etc.; central heating plant; glass-enclosed passages connecting buildings; build sewerage system; will use Kenilworth Hotel in connection with sanitarium; plans also include fire department, theater, auditorium, recreation park, Y. M. C. A. building, music hall, Red Cross building and mess hall to seat 1500; Capt. T. Boyd, Archt., Surgeon-General's office, Washington. (Lately noted.)

HOTELS

Mo., St. Louis.—Terminal Hotel Assn., 1912 Market St., let contract to C. B. McCormack & Co., St. Louis, to repair and refurnish hotel; 35 additional bedrooms with private baths; cost \$15,800.

S. C., Spartanburg.—W. T. Finch, Finch Hotel, let contract to Willard, Boggs & Co., Spartanburg, to erect hotel on East Main St.; 200x45 ft.; 6 stories; 110 rooms with private baths; reinforced concrete frame; slab and beam floor construction; cost \$150,000; S. P. Tinsley, Archt., Spartanburg. (Lately noted.)

MISCELLANEOUS

Fla., Oldsmar.—Poolroom.—John Gaunt let contract to erect pool and billiard-room.

Fla., Pensacola.—Clubhouse.—I. H. Aiken, J. M. Muldon and J. Frank Taylor purchased Bass Bldg. and let contract to Turner Construction Co. to remodel for clubhouse to be leased by War Camp Community Service Comsn.; 3 stories; brick; first floor for club-room and cafeteria; second floor for assembly hall; third for dormitories to accommodate about 200 cots; install 6 shower baths and 12 lavatories; provide number dressing-rooms, etc.; probably lay out 3 tennis courts.

N. C., Azalea.—Music Hall, Auditorium, Fire Department, etc.—War Dept., Washington, D. C., let contract to Gude & Co., Atlanta, Ga., to erect \$1,500,000 tuberculosis sanitarium; plans include buildings for fire department, auditorium, music hall, mess hall to seat 1500, etc.; Capt. T. Boyd, Archt., Surgeon-General's office, Washington. (See Hospitals.)

RAILWAY STATIONS, SHEDS, ETC.

Ga., Columbus.—Committee, J. B. Huff and others, let contract to Gifford & Whittaker to erect transfer station at 10th and Broad Sts.; brick and stone; cost \$7000; T. F. Lockwood, Archt., Columbus.

Tenn., Nashville.—Nashville, Chattanooga & St. Louis Ry., H. McDonald, Chief Engr., will enlarge office space; erect extension 50x71 ft.; brick on stone foundation; composition roof; tongue and groove flooring; contract let; cost \$16,000. (Lately noted.)

SCHOOLS

Ark., Conway.—Hendrix College let contract to E. W. Jenkins, Little Rock, to erect dormitory; 60x128 ft.; 4 stories; brick; tile roof; reinforced concrete floors; steam heat from central plant; cost \$100,000; Thompson & Harding, Archts., Little Rock. Address W. B. Hubbell, Financial Agent, Conway. (Lately noted.)

Ga., Lizella.—Bibb County Board of Education, D. H. Bruce, Supt., Macon, let contract to W. D. Griffith, Macon, to erect high school building; brick; 1 story; 19 rooms and assembly hall; accommodate 350; cost \$18,000. (Previously noted.)

Miss., Arcola.—Arcola Consolidated School Dist. let contract to J. H. Meyer, Jackson, Miss., to erect lately noted building; 54x117

Johns-Manville built-up roofing; concrete floor on first floor; 2nd and 3rd floors, slow-burning construction; private electric plant; cost \$37,000; steam heat \$3000; W. A. Stanton, Archt., Vicksburg. (See Machinery Wanted—Concrete Mixer; Hoisting Machine.)

N. C., Chapel Hill.—University of North Carolina let contract to I. G. Lawrence, Durham, to erect physics-engineering building; 70x180 ft.; concrete and brick; Barrett roofing; concrete floors; heating and lighting from central plant; Chas. C. Hook, Archt., Charlotte. (Lately noted.)

N. C., Paw Creek.—Paw Creek School Dist. let contract to J. P. Little & Son, Charlotte, N. C., to erect school building; 8 rooms and auditorium; brick; slate or gravel roof; cost \$25,000; L. L. Hunter, Archt., Charlotte. (Lately noted.)

Okla., Chickasha.—Oklahoma College for Women is reported to have let contract to Campbell & Price, Oklahoma City, to erect 50-room dormitory; Layton & Smith, Archts., Oklahoma City. (Lately noted.)

S. C., Saluda.—Saluda School Dist. Comsn. let contract to J. W. Stout & Co., Sanford, N. C., to erect 11-room school.

Tex., Bryan.—City Comms. let contract at \$81,000 to T. B. Hubbard, Bryan, to erect high school; brick and concrete; total cost, including plumbing, lighting, heating, etc., \$101,000; M. L. Waller & Co., Archts., Fort Worth. (Lately noted.)

Tex., Cleburne.—Lone Star School Dist. let contract to erect school building; brick; C. H. Leinbach, Archt., 1105 S. W. Life Bldg., Dallas; voted \$6000 bonds. (Previously noted.)

Tex., Meridian.—Meridian College Dormitory Co. let contract to C. S. Oates, Dublin, Tex., to erect lately-noted boys' dormitory; 40x86 ft.; 2 stories and basement; stone and brick; gravel roof; wood and cement floors; electric lights; cost \$12,750. (See Machinery Wanted—Electric Lighting; Plumbing.)

Tex., Italy.—City let contract to Eugene Martin, Italy, to erect high school; 65x71 ft.; 2 stories; brick; composition roof; first floor, cement; second floor, wood; stoves; electric lights from local plant; cost \$15,900; T. J. & J. O. Galbraith, Archts., Dallas and Hillsboro, Tex. (Previously noted.)

Tex., Orange.—City School Board let contract to H. N. Jones Construction Co., San Antonio, to erect ward school; 3 stories; brick, tile and concrete; fireproof; cost \$64,400; also let contract to J. G. Knappe, Austin, to remodel Anderson School; cost \$36,500; C. H. Page & Bro., Archts., Austin. (Lately noted.)

Va., Newport News.—United States Shipping Board, Emergency Fleet Corp., J. Rogers Flannery, Director of Housing, Washington, D. C., let contract to Mellon-Stuart Co., Pittsburgh, Pa., to erect schools, etc., in connection with development of Hilton for shipyard employees. (See Government and State.)

STORES

Mo., St. Louis.—Wm. and Harry Steiner, 2314 S. Broadway, let contract to erect store building; 38x109 ft.; brick; concrete floor construction; steam heat; electric lights; cost \$11,000; Chas. N. Jacobs, Agent, 3630 Minnesota Ave., St. Louis. (Lately noted.)

N. C., Azalea.—War Dept., Washington, D. C., let contract to Gude & Co., Atlanta,

Ga., to erect \$1,500,000 tuberculosis sanitarium; plans by Capt. T. Boyd, Surgeon-General's office, Washington, call for central stores, etc. (See Hospitals.)

Okla., Oklahoma City.—J. Wright let contract to F. M. Ray, Oklahoma City, to erect business building; cost \$3000.

Okla., Sulphur.—J. J. Sparks let contract to L. H. Frier, Sulphur, to erect building to replace burned structure; possibly 2 stories; fireproof; about 25x150 ft.

Okla., Sulphur.—Sulphur Dry Goods Co. let contract to L. H. Frier, Sulphur, to erect store building to replace burned structure; 1 or 2 stories; 50x150 ft.; plate-glass front.

Tex., Beaumont.—H. A. Peralstein let contract to H. Weber, Beaumont, to remodel building; cost \$3000; Babin & Beck, Archts., Beaumont.

Tex., Beaumont.—T. H. Laughan will erect business building; 2 stories; brick; cost \$10,000; C. A. Logan, Archt., Beaumont.

Tex., El Paso.—Sam Stark, 910 El Paso St., let contract to Wm. Birt, 910 N. El Paso St., El Paso, to erect store building; 26x80 ft.; concrete basement; 17 in. brick wall; tar and gravel roof; concrete basement floor; 1st floor wood; cost \$4500; electric lights, \$150; Hydrolid elevator, \$300. (Lately noted.)

Va., Newport News.—United States Shipping Board, Emergency Fleet Corp., J. Rogers Flannery, Director of Housing, Washington, D. C., let contract to Mellon-Stuart Co., Pittsburgh, Pa., to further develop village of Hilton to house employees at shipyards; plans include business buildings, dwellings, churches, etc. (See Government and State.)

THEATERS

Miss., Moss Point.—Treloar & Co. has plans by and let contract to Lee Beyer, Moss Point, to erect theater building; 40x55 ft.; frame; felt roof; incline floor; electric lights; cost \$900. (Lately noted.)

N. C., Azalea.—War Dept., Washington, D. C., let contract to Gude & Co., Atlanta, Ga., to erect \$1,500,000 tuberculosis sanitarium; plans include theater, etc.; Capt. T. Boyd, Archt., Surgeon-General's office, Washington. (See Hospitals.)

N. C., Charlotte.—J. H. and Sidney McAden let contract to J. A. Gardner, Charlotte, to remodel building at 28 E. Trade St. for theater; cost \$10,000.

Tex., San Angelo.—Sam Nastos, El Paso, and J. D. Jones, Greenville, Tex., let contract to remodel building for theater; cost \$5000.

WAREHOUSES

Md., Baltimore.—Chesapeake Coal Co. let contract to J. J. Walsh & Son, 1533 Maryland Ave., Baltimore, to erect 1-story brick warehouse, 132x98 ft., on Morton alley near Fallway; cost \$4500.

Md., Baltimore.—Maryland Distilling Co. let contract to J. Henry Miller, Inc., Eutaw and Franklin Sts., Baltimore, to repair warehouse at 310-12 Guilford Ave.

Va., Staunton.—Wm. S. Bryan let contract to A. B. Rohr, Staunton, to erect warehouse; 2 stories; brick; 80x40 ft.; cost \$3000.

Tex., Beaumont.—Phoenix Furniture Co. let contract to H. Weber, Beaumont, to erect warehouse; 3 stories; brick and concrete; cost \$30,000; C. A. Logan, Archt., Beaumont. (Previously noted.)

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

"WANTS"

Automobile Accessories and Supplies.—See Machine Shop Equipment.—Mutual Motors Co.

Bag-making Machinery.—J. M. Peace, Henderson, N. C.—Addresses of manufacturers of or dealers in machinery to make cotton and burlap bags for flour, meal, mill feed, etc.

Boats.—Tidewater Lighterage Co., 710 Citizens' Bank Bldg., Norfolk, Va.—Prices on lighters. (See Hoists, etc.)

Boiler.—See Engine (Steam), etc.—W. S. Nourse.

Boiler.—Newtown Giant Incubator Corp., Harrisonburg, Va.—Second-hand stationary return tubular boiler; 100 H. P.; good condition; inspection.

Boiler.—L. T. Crisler, Drawer 1100, Orlando, Fla.—Prices on 50-100 H. P. pressure boiler.

Boiler, etc.—Home Lubricating Works, 411 E. Archer St., Tulsa, Okla.—Prices on

boiler, pumps, compounding kettles, etc., for manufacture of lubricating oil.

Boilers.—Bureau Yards and Docks, Navy Dept., Washington, D. C.—Bids until May 29 to install 4 boilers in heating plant, Norfolk, Va.; cost \$40,000; specification No. 289.

Boiler and Engine.—Chas. A. McLean, 412 Citizens' Bank Bldg., Norfolk, Va.—Prices on portable boiler and engine on wheels; 25 to 30 H. P.

Bridge Construction.—Lauderdale County Commrs., M. S. Bingham, County Highway Engr., Florence, Ala.—Bids until June 10 to construct 100-ft. reinforced concrete bridge across Six-Mile Creek near Killen, Ala.

Bridge Construction.—Breathitt County Fiscal Court, J. Wise Hagins, Judge, Jackson, Ky.—Bids until May 20 to take down and re-erect steel bridge at Haddix, Ky.

Bridge Construction.—Lenoir County Commrs., C. W. Pridgen, Clerk, La Grange, N. C.—To open bids June 3 for construction of steel bridge across Bear Creek; length 75 ft.; 16-ft. roadway; concrete abutments; further information with D. W. Wood, La Grange; no plans on file.

Bridge Construction.—Lewis County Highway Commrs., Edwin Gallaher, Secy., Hohenwald, Tenn.—Bids until May 31 (extended date) to construct 2 steel bridges across Buffalo River and 1 concrete bridge over Swan Creek; plans and specifications with County Engr.

Broom Sticher.—Liberty Chair Co., Liberty, N. C.—Baltimore broom sticher. (See Lathe.)

Bucket (Clam-Shell).—See Crane (Locomotive).—Pleasant Valley Coal Mining Co.

Bucket (Dredging and Excavating).—H. M. Waugh, Railroad Contractor, Law & Commerce Bldg., Bluefield, W. Va.—Prices on ditch bucket for 31 Marion shovel. (See Dipper Sticks and Bucket.)

Building Materials.—L. T. Crisler, Drawer 1100, Orlando, Fla.—Composition roofing, hardware, doors and windows, pipes and fittings of all kinds, radiators, etc., for \$20,000 sanitarium building.

Cars.—L. L. Crump, Anniston, Ala.—Prices on second-hand or rebuilt electric cars. (See Railway Equipment.)

Cars.—Big Bend Coal Co., Arthur W. Evans, Mgr., Harriman, Tenn.—Prices on mine cars.

Cars (Flat).—United Machine Works, 55 W. 3rd St., New York.—Prices on flat cars, 30 or 36-in. gauge, about 18 to 20 ft. long, for carrying sugar-cane for export. Give details.

Cars (Ore; Passenger).—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—Prices on ore cars, not over 24 ft. long; also passenger coaches.

Cars (Mine).—W. O. Arzinger Machinery Co., Nashville, Tenn.—Prices on 12 mine cars from ½ yd. to 3 yds. capacity; for 24-in. gauge.

Casks (Wine).—United Dealers Buying Co., Norfolk, Va.—Prices on 40 new or second-hand hardwood 250-gal. tanks or wine casks.

Chimney Construction.—Bureau Yards and Docks, Navy Dept., Washington, D. C.—Bids until May 20 to construct radial block chimney at Norfolk Navy-yard; cost \$10,000.

Compressors (Air).—W. S. Nourse, N. E. Cor. 3rd & Vine Sts., Cincinnati, O.—Prices on 40-ft. and 100-ft. air compressor.

Compressor (Air).—Mutual Motors Co., F. H. Hazer, Mgr., 217 Southern Trust Bldg., Little Rock, Ark.—Prices on air compressor. (See Machine Shop Equipment.)

Concrete Mixer.—J. H. Meyer, Jackson, Miss.—Concrete mixer for constructing school at Arcola, Miss.

Concrete Spillway and Dam Reinforcement.—Commrs. Public Works, J. E. Gibson, Mgr. and Engr., 14 George St., Charleston, S. C.—Bids until May 20 to construct concrete spillway and reinforcement of earthen dam, Goose Creek impounding reservoir near Saxon Station; includes 5500 sq. yds. stripping, 7730 cu. yds. excavation, 8890 cu. yds. embankment, 403 cu. yds. reinforced concrete, 943 cu. yds. plain concrete; 528 round piles, 13,700 lin. ft.; 2784 running ft. 4-in. sheet piling, 10 to 24 ft. long; 10,000 ft. B. M. timber work in baffle; 24,000 lbs. reinforcing steel and expanded metal; 1320 lbs. bolts and dock spikes; plans, specifications, etc., on application to Comm.

Conveyors.—Walter H. Witty, Winona, Minn.—Prices on conveyors. (See Grist and Feed Mill Machinery.)

Corn and Wheat Mills (Family).—Mrs.

C. Whitaker, 706 W. Broadway, Louisville, Ky.—Data, catalogs and prices of mill to grind corn and wheat for family.

Corkscrews.—Sulfron Medicine Co., Box 434, Birmingham, Ala.—Correspondence with manufacturers of small corkscrews.

Cotton Gin Machinery, etc.—Estill Enterprise & Fertilizer Co., B. J. Peebles, Mgr., Estill, S. C.—Prices on cotton gin, electric light, fertilizer-mixing and ice machinery; oil engine operation. (Has partially purchased machinery.)

Crane (Locomotive).—E. H. Edwards, 4503 N. Rockwell St., Chicago, Ill.—Prices on 10-ton, 4-wheel locomotive crane.

Crane (Locomotive).—Pleasant Valley Coal Mining Co., Clarksburg, W. Va.—Prices on locomotive crane: 8 wheels; 10-ton capacity; 42-ft. boom; with 1-yd. clam-shell bucket.

Cresote.—Monson Mfg. Co., Monaskon, Va.—Prices on cresote per gallon, in barrel lots, f. o. b. Baltimore or Monaskon, Va. (See Piling.)

Crusher (Coal).—Blackstone Consolidated Coal Co., Okmulgee, Okla.—Prices on 600-ton coal crusher.

Culverts.—H. C. Roberts, Coats, N. C., (Chmn. Harnett County Road Commrs.)—Prices on culverts.

Drainage.—Courtney Campbell, Clarendon County Drainage Dist., Foreston, S. C.—Bids on 200,000 yds. excavation; part, small floating dredge work and part land machine.

Dipper Sticks and Bucket.—H. M. Waugh, Railroad Contractor, Law & Commerce Bldg., Bluefield, W. Va.—Prices on pr. long dipper sticks with ditch bucket suitable for 31 Marion shovel.

Dragline Machine.—Vaughan Construction Co., Shawsville, Va.—Prices on good second-hand dragline machine, 1½ or 2-yd. bucket, 60 or 80-ft. boom roller skids; immediate delivery.

Electric Lighting.—Meridian College Dormitory Co., Meridian, Tex.—Bids on electric lighting for \$12,750 dormitory building.

Electric-light Equipment.—Estill Enterprise & Fertilizer Co., B. J. Peebles, Mgr., Estill, S. C.—Prices on electric-light equipment. (See Cotton Gin Machinery, etc.)

Electrical Machinery, etc.—Roy Parks, Mayor, Prague, Okla.—Bids until May 16 for construction 22 mi. transmission line; outdoor substation; three 75 K. V. A. transformers; two 500 G. P. M. motor-driven centrifugal pumps; air compressor, etc.; plans and specifications, etc., upon deposit of \$25, certified check.

Engine (Corliss).—Standard Milling Co., 500 H. P. cross compound Corliss engine.

Engine (Hoisting).—W. S. Nourse, N. E. Cor. 3rd & Vine Sts., Cincinnati, O.—Prices on small hoisting engine.

Engine (Steam), etc.—W. S. Nourse, N. E. Cor. 3rd & Vine Sts., Cincinnati, O.—Prices on 100 H. P., steam engine, with or without boiler.

Engine.—See Boiler and Engine.—Chas. A. McLean.

Engines (Gasoline and Kerosene).—Walter H. Witty, Winona, Miss.—Prices on gasoline and kerosene engines. (See Grist and Feed Milling Machinery.)

Engine (Hoisting; Steam).—Big Bend Coal Co., Arthur W. Evans, Mgr., Harriman, Tenn.—Prices on small steam hoisting engine.

Engines (Hoisting).—Wm. T. Johnston Co., Third and Vine Sts., Cincinnati, Ohio. Dealer's prices on hoisting engines.

Engines.—Wm. T. Johnston Co., Third and Vine Sts., Cincinnati, Ohio.—Dealer's prices on engines.

Excavators (Drag Line).—C. C. D., care Manufacturers Record, Baltimore, Md.—Prices on class 20 Bucyrus drag line excavators (or equal), 20 ft. diam. turntable, 85-ft. boom, 2½-yd. bucket, 9x12 double cylinder main engine; first class; immediate delivery; state point of inspection.

Fertilizer-mixing Machinery.—Estill Enterprise & Fertilizer Co., B. J. Peebles, Mgr., Estill, S. C.—Prices on fertilizer-mixing machinery. (See Cotton-gin Machinery, etc.)

Fans (Exhaust).—Walter E. Wright, Tulsa, Okla.—Prices on exhaust fan for cafe in basement of 8-story office building.

Grist and Feed Milling Machinery.—Walter H. Witty, Winona, Miss.—Prices on corn shucker and sheller, large grist mill and bolter, corn cleaner, chops machine, feed grinder and mixer; also on electric motors, gasoline and kerosene engine, conveyors, belting, etc.

Hardware.—See Building Materials.—L. T. Crisler.

Heating Plant.—H. A. Meetze, Cash. National Bank of Leesville, Leesville, S. C.—Heating plant for church building.

Heating and Ventilating Apparatus.—Dept. of Justice, Office Supt. of Prisons, Washington, D. C.—Bids until May 28 to furnish and deliver at United States Penitentiary, Atlanta, Ga., heating and ventilating apparatus for east main cell wing; copies of specifications, etc., on application.

Heating Equipment.—L. T. Crisler, Drawer 1100, Orlando, Fla.—Prices on pipe and fittings, radiators, etc., for \$20,000 sanitarium building.

Heating and Ventilating Apparatus.—Dept. of Justice, F. H. Duchay, Supt. Prisons, Washington, D. C.—Bids until May 28 to furnish and deliver at U. S. Penitentiary, Atlanta, Ga., heating and ventilating apparatus for east main cell wing.

Heater (Feed-Water).—Williamsburg Power Co., J. L. Bullard, Mgr., Williamsburg, Va.—Prices on feed-water heater for 170 H. P. engine with 7-in. exhaust pipe connections: All condition; prompt shipment.

Hoists, etc.—Tidewater Lighterage Co., 710 Citizens' Bank Bldg., Norfolk, Va.—Prices on second-hand hoists and lighters.

Hoisting Machine.—J. H. Meyer, Jackson, Miss.—Hoisting machine for construction of school at Arcola, Miss.

Ice Machinery.—Estill Enterprise & Fertilizer Co., B. J. Peebles, Mgr., Estill, S. C.—Prices on ice machinery. (See Cotton-gin Machinery, etc.)

Kettles.—Home Lubricating Works, 411 E. Archer St., Tulsa, Okla.—Prices on kettles. (See Boilers, etc.)

Lathes.—See Machine Tools.—York River Shipbuilding Corp.

Lathe (Handle), etc.—Liberty Chair Co., Liberty, N. C.—Prices on automatic broom-handle lathe, sander and Baltimore broom sticher; consider second-hand in good condition.

Levee Construction.—Third Mississippi River Dist., P. O. Box 404, Vicksburg, Miss.—Bids until May 20 to construct 400,000 cu. yds. levee work.

Lithographing and Printing.—Dept. of Interior, Washington.—Bids until May 28 for lithographing and printing and for mounting 22,000 copies of General Land Office map of United States for 1919; also bids for photolithographing and printing 3000 copies of each of maps of land states and insular possessions prepared in General Land Office during year ending June 30, 1919; specifications on application.

Locomotives (Gasoline).—See L. L. Crump, Anniston, Ala.—Data and prices on gasoline locomotives.

Locomotive.—Pennsylvania Equipment Co., 1420 Chestnut St., Philadelphia, Pa.—Prices on second-hand Mogul type locomotive, 19x24, weight 60 tons, steam pressure 180 lbs.

Manufactures.—Coronel & Co., Surinam, Paramaribo, Dutch Guiana.—To represent American manufacturers and exporters.

Metalworking Machinery.—See Machine Shop Equipment.—Mutual Motors Co.

Machine Shop Equipment.—Mutual Motors Co., F. H. Hazer, Mgr., 217 Southern Trust Bldg., Little Rock, Ark.—Prices on cylinder grinding machine; lathes; drill press; battery-charging outfit; vulcanizing plant; air compressor; small shop tools; accessories; supplies.

Machine Tools.—York River Shipbuilding Corp., West Point, Va.—Prices on following second-hand machine-shop tools: 16-in. shaper; planer, 6-in. x 24-in.; 16-in. to 20-in. drill press; 12-in. screw-cutting lathe; 6-in. to 8-in. screw-cutting lathe.

Motor (Electric).—Roy C. Wayne Supply Co., 318 W. Main St., Louisville, Ky.—Electric motor; 440 volt; 60 cycle; 3 phase. See Pump (Centrifugal).

Motors (Electric).—Blackstone Consolidated Coal Co., Okmulgee, Okla.—Prices on small A. C., 3-phase, 60-cycle motors.

Motors (Electric).—Walter H. Witty, Winona, Miss.—Prices on electric motors.—See Grist and Feed Milling Machinery.

Oil Press.—Hackley Morrison, 294 Moore Bldg., 16½ N. 9th St., (Box 1337), Richmond, Va.—Prices on oil press, to make cakes 13½x33 in.

Paving.—City of Huntington, W. Va., A. B. Maupin, City Engr.—Bids until May 27 to grade, curb and pave with vitrified brick

6000 ft. Norway Ave. from end of present paving east to corporation line; drawings, specifications, etc., on file with City Engr.; O. H. Wells, Commr. of Streets, Sewers, Wharf, etc.

Paving.—Duval County Commrs., L. L. Meggs, Chmn., Jacksonville, Fla.—Bids until May 28 to pave St. Augustine Rd. from end of present brick paving south of Bayard to county line; 5000 sq. yds. brick paving and 10,000 lin. ft. concrete curbing; specifications obtainable from Frank Brown, County Clerk, 101 Courthouse Bldg.

Paving.—Duval County Commrs., L. L. Meggs, Chmn., Jacksonville, Fla.—Bids until May 28 to resurface St. Johns Ave. from city limits to McGirts Creek bridge with Tarvin and stone; 25,000 sq. yds.; specifications obtainable from Frank Brown, County Clerk, 101 Courthouse Bldg.

Paving Blocks (Wire-Cut Lug).—City of Goldsboro, N. C., E. A. Beck, City Mgr.—Bids until May 22 on 125,000 3½-in. wire-cut lug blocks; f. o. b. cars Goldsboro.

Piling (Cresote Pile), etc.—Monson Mfg. Co., Monaskon, Va.—Prices on pine cresote piling 20, 22 and 25 ft. long, 12 to 15 in. across butt end; also prices per gal. on cresote, in barrel lots, f. o. b. Baltimore or Monaskon, Va.

Pipe Machine.—Roy C. Wayne Supply Co., 318 W. Main St., Louisville, Ky.—Dealer's prices on new or used pipe machine, with cut-off attachment and right-hand dies; for immediate delivery; prefer 2 machines, one handling material from about 2½ in. to 12 in., the other from about 1½ in. to 8 in.

Pipe and Fittings.—L. T. Crisler, Drawer 1100, Orlando, Fla.—Prices on pipe and fittings of all kinds for \$20,000 sanitarium building.

Pipe-threading Machine.—Cater-Kilby Hardware Co., Anniston, Ala.—Prices on second-hand or used pipe-threading machine, cutting up to 2½ in.

Plows (Traction).—Osceola Farm Co., B. A. Cassidy, Mgr., Tavares, Fla.—Prices on traction plows.

Plumbing.—Meridian College Dormitory Co., Meridian, Tex.—Bids on plumbing for \$12,750 dormitory building.

Press (Drill).—York River Shipbuilding Corp., West Point, Va.—Prices on 16-in. to 20-in. drill press. (See Machine Tools.)

Pump (Centrifugal).—Roy C. Wayne Supply Co., 318 W. Main St., Louisville, Ky.—Dealer's prices on vertical centrifugal pump; about 2-in. discharge, with 3-phase, 60-cycle, 440-volt electric motor; all on steel frame with suspension hook; suitable for low lift work.

Pump.—L. T. Crisler, Drawer 1100, Orlando, Fla.—Prices on centrifugal pump.

Pumps.—Wm. T. Johnston Co., Third and Vine Sts., Cincinnati, Ohio.—Dealer's prices on pumps.

Pumps.—Home Lubricating Works, 411 E. Archer St., Tulsa, Okla.—Prices on pumps. (See Boilers, etc.)

Pumping Unit.—Commrs. Dist. of Columbia, 509 District Bldg., Washington, D. C.—Bids until May 24 to furnish and install at District pumping station steam-driven centrifugal pumping unit; 24-hr. capacity, 15,000,000 gals.; specifications and proposal forms from Purchasing Officer, D. C., Room 320 District Bldg.

Pumping Equipment.—City of Charlotte, N. C., W. E. Vest, Supt. Waterworks.—Open bids May 23 on pumping equipment upon certain centrifugal pumping units for waterworks; complete information and specifications from A. H. Wearn, Commr. of Public Works, or Anderson & Christie, Consult. Engr., Charlotte. (Lately noted.)

Punch (Roller-Plate).—D. L. Casey Machine Co., Springfield, O.—Prices on roller-plate punch: 20-in. to 24-in. throat.

Rails.—Big Bend Coal Co., Arthur W. Evans, Mgr., Harriman, Tenn.—Prices on second-hand 16-lb. steel rails.

Rails, Equipment (Electric), etc.—L. L. Crump, Anniston, Ala.—Data and prices on relay rail; second-hand or rebuilt cars (probably for electric railway), especially interested in gasoline equipment for railway.

Radiators.—See Heating Equipment.—L. T. Crisler.

Rice Machinery.—A. P. Spencer, Asst. Director Co-operative Extension Work, Agriculture and Home Economics, State of Florida, Gainesville, Fla.—Addresses of manufacturers of rice machinery.

Road Construction, etc.—Wichita County Commrs., E. P. Walsh, County Auditor,

Wichita Falls, Tex.—Bids until May 16 to construct 8.8 mi. gravel surfacing with bituminous surface treatment; 170.16 cu. yds. concrete and 368.96 cu. yds. concrete for drainage structures under 20 ft.; 200 lin. ft. concrete spillway; plans on file with J. B. Crockett, Courthouse, Wichita Falls, and State Highway Dept., Capitol Bldg., Austin, Tex.

Road Construction.—Lauderdale County Comrs., M. S. Bingham, County Engr., Florence, Ala.—Bids until June 10 to construct road beginning at end of Pike on Cloverdale Road and extending 4 mi. to State Line; also road beginning at end of Pike on Waterloo Road and extending west 4 mi.; both roads to be graveled with creek gravel.

Road Construction.—Carroll County Highway Comsn., Dist. No. 5, J. W. Ward, Chrmn., Vaiden, Miss.—Bids June 1 to construct 30 mi. sand-clay roads; \$50,000 available; plans and specifications on file office of Chancery Clerk, Vaiden, and with W. C. Stowell, Const. Engr., Hazlehurst, Miss.

Road Construction.—Anne Arundel County Comrs., E. T. Hayman, County Road Engr., Annapolis, Md.—Bids until May 14 to construct 1½ mi. concrete road from Baltimore-Annapolis Blvd. to St. Margaret's Church in Third Election Dist.; includes concrete bridge over Mill Creek; specifications obtainable from State Roads Comsn., 601 Garrett Bldg., Baltimore; plans on file with County Road Engr.

Road Machinery.—H. C. Roberts, Coats, N. C. (Chmn. Harnett County Road Commissioners).—Prices on road machinery.

Roofing.—See Building Materials.—L. T. Crisler.

Roofing (Tile).—H. A. Meetze, Cash. National Bank of Leesville, Leesville, S. C.—Red tile roofing for church building.

Rope (Wire).—Roy C. Whayne Supply Co., 318 W. Main St., Louisville, Ky.—Dealer's prices on (new) wire rope; crucible or plow steel; ½, ¾ and 1-in.; full reel length preferred.

Sander.—Liberty Chair Co., Liberty, N. C.—Prices on sander. (See Lathe.)

Seating.—H. A. Meetze, Cash. National Bank of Leesville, Leesville, S. C.—Pews for church building.

Sewer Construction.—Board of Comrs.,

Nashville, Tenn.—Bids to construct clay pipe sewer from and connecting with present sewer in Herman St.; also clay pipe sewer from and connecting with Cockrill St. sewer; bids opened May 14; plans and specifications on file with City Engr.; Wm. Gupton, Mayor.

Shovels (Steam).—Wm. T. Johnston Co., Third and Vine Sts., Cincinnati, Ohio.—Dealer's prices on steam shovels.

Stave Machinery.—Excelsior Lumber Co., Funks Run, Va.—Prices on new or good second-hand machinery for manufacturing slack barrel and keg staves.

Tanks (Oil Storage).—Pennsylvania Equipment Co., Philadelphia, Pa.—Prices on 2 second-hand 8000 to 9000-gal. vertical cylindrical tanks, about 16 ft. high, 10 ft. diam., 5/16-in. shell bottom, for oil storage.

Tanks (Wood).—See Casks (Wine).—United Dealers Buying Co.

Telephone System.—Bureau Yards and Docks, Navy Dept., Washington, D. C.—Bids until May 20 to install automatic telephone system in general storehouse at Hampton Roads, Va.; cost \$12,500.

Umbrella Parts.—R. H. Roney, Box 132, Burlington, N. C.—Addresses of manufacturers of umbrella parts (stretchers, rods, etc.).

Ventilating Apparatus.—Treasury Dept., Jas. A. Wetmore, Acting Supervising Archt., Washington, D. C.—Bids until June 12 for ventilating apparatus in Room 410, Supervising Archt's office, Treasury Dept.; specifications obtainable.

Vulcanizing Plant.—See Machine Shop Equipment.—Mutual Motors Co., F. H. Hazer, Mgr., 217 Southern Trust Bldg., Little Rock, Ark.—Prices on vulcanizing plant.

Well-drilling Equipment.—Wetzel & Parks, 208 Ant Bldg., Tulsa, Okla.—Prices on Star drilling rig for oil; capacity to drill 1200 to 2000 ft.

Wharf and Trestle Construction.—Bureau of Yards and Docks, Navy Dept., Washington, D. C.—Bids until May 20 to construct wharf and trestle at Navy Yard, Charleston, S. C.; cost \$15,000.

Woodware Specialties.—United Fixture & Paper Co., 320 W. Broughton St., Savannah, Ga.—Woodware specialties.

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Anniston.—Contemplated electric gas-electric railway from Anniston to Camp McClellan would be 6 mi. long through rough country. Practically all of \$100,000 subscribed. L. L. Crump, W. H. McKleroy, Ross Blackman, W. H. Weatherly and Jas. Saks are committee. Company to be organized.

Ala., Decatur.—Plans are under consideration to build an electric railway from Decatur and New Decatur to Florence, Sheffield and Tusculum, Ala., about 45 mi. H. L. Morrill, Pres. of the Decatur Boosters Club, and D. S. Echols of Decatur, together with C. E. Warwick of Vicksburg, Miss., are reported interested.

Ark., Augusta.—Augusta Railroad Co., capital \$30,000, incorporated to succeed the Augusta Tramway & Transfer Co. Road is 22 mi. long from Augusta to New Augusta, on the Missouri Pacific Railway. Improvements may be made. R. T. Harville is Pres.; I. J. Stacy, Vice-Prest.; J. C. McDonald, Secy.; F. H. Kittrell, Treas.; other incorporators being H. P. Dale, T. E. Bonner, E. G. Thompson, W. N. Gregory, J. H. Dale and C. L. Adamson.

Md., Baltimore.—Baltimore City has completed its municipal railroad connecting with the Baltimore & Ohio and the Pennsylvania lines, but it has announced plans to construct an extension to connect with the Western Maryland Railway at Port Covington in the southern part of the city. Address Mayor J. H. Preston.

Miss., Laurel.—Laurel Commercial Club, B. A. Schneider, Pres., has appointed a committee to secure construction of a 7-mi. railroad to connect the Wausau-Southern Lumber Co.'s line with the Gulf, Mobile & Northern R. R. The committee members are Mayor T. W. McCallum, Chrmn.; Rev. L. G. Gates, W. S. Welch, Frank Wisner and J. F. Calhoun.

Okla., McAlester.—C. W. Dawley and associates are reported building a railroad from a connection with the Rock Island line,

between Dow and Bache for the McAlester Fuel Fields Co. It will be about 6 mi. long. Tenn., Collinwood.—Tennessee Valley Iron & Railroad Co. will, it is reported, soon begin construction of its line from Collinwood to Wayne Furnace, 14 mi. E. H. Steinman, Collinwood, is Gen. Mgr.

Tenn., Knoxville.—Southern Railway is reported preparing plans to build a large train yard near Caswell Station to supplement the Knoxville and the Coster yards. Capacity 3000 cars. There will be a connecting track 2 mi. long. B. Herman is Ch. Engr. at Charlotte, N. C.

Tex., Mart.—Missouri, Kansas & Texas Railway is reported contemplating construction of a line from Weldon northwest to Mart, Tex., 85 or 90 mi. to reach Waco from there over the International & Great Northern or else by building about 15 mi. more. F. Ringer, Dallas, Tex., is Ch. Engr.

Tex., Orange.—The Orange Municipal Railway, about 1 mi. long, connecting the Southern Pacific Railway and the Gulf Coast Lines, is almost completed. It reaches the municipal docks.

STREET RAILWAYS

Ga., Savannah.—The Foundation Co. contemplates constructing a street-car line from its shipyard on the Brampton Tract to connect with the Port Wentworth extension of the Savannah Electric Co. It will be about a mile long. H. C. Foss, Mgr., Savannah Electric Co. may give information.

Md., Baltimore.—United Railways & Electric Co. has been authorized to build its proposed extension of several miles to Wagner's Point in Anne Arundel County, near Baltimore, to serve several industries. Thomas A. Cross is Pres.

Va., Newport News.—J. N. Shanahan of Hampton, Va., representing the Emergency Fleet Corp., has applied to the city for authority to build a street-car line on 50th and 55th Sts. and Virginia Ave. to accommodate workmen at the shipbuilding town now being established north of the city limits.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

At a New Location.

The Bound Brook Oil-Less Bearing Co. announces that on May 15 its Western office changed its location to Room 1723 Ford Bldg., Detroit, Mich. It was formerly at 308 Moffat Bldg. The office is under the charge of Harry J. Lindsley, Western sales manager.

Opens Office at Buffalo.

To extend better service and to take care of increasing business the Aborn Steel Co., Inc., has opened an office at 520 Marine Bank Bldg., Buffalo, N. Y. The Buffalo section is under the charge of D. J. Mahoney as district manager for the Aborn Steel Co. and the Century Steel Works.

Business Change.

The retail department of the Hubbard Lumber Co. of Harlan, Ky., has been purchased by F. F. Cawood. W. P. Hubbard of the Hubbard Lumber Co. retains the wholesale department and the timber and timber lands part of the company's business, and will devote his time to these and to his coal interests.

Aeroplane Company Changes Name.

It is announced that the Briggs Aeroplane Co. of Alexandria, Va., will be known as the Alexandria Aircraft Corporation on and after May 15. A. W. Briggs, the general manager, has resigned from it and wishes to use his name for another enterprise. Blaine Elkins is president of the aeroplane company, and John W. Fenton, Jr., secretary and treasurer.

Drainage and Dredging.

The McWilliams Southern Dredging Co., organized in April under the laws of Tennessee, with \$100,000 capital, will engage in general drainage and dredging work. Its office will be at Memphis, Tenn., and the officers are: R. H. McWilliams, president; G. A. McWilliams, vice-president; A. W. Fisher, secretary and treasurer, and George L. Heck, superintendent and general manager.

Increased Factory Capacity.

The Cement Products Co., Wilmington, N. C., manufacturer of the Sanisep portable sewage-disposal systems, announces the completion of its new electrically-operated factory plant. This enlargement of capacity was compelled, it is stated, by the increased use of these sewage tanks in industrial towns, coal-mining camps and cotton-mill villages in consequence of the now generally recognized importance of sanitary safeguards to the public health.

Specializes in Clocks and Watches.

A business devoted exclusively to clocks and watches and their proper repair has been opened by Louis E. Kaiser at 134 W. Fayette St., near Liberty St., Baltimore, Md. It is known as "The Time-Piece Shop." The purpose of this enterprise is to handle everything coming under the head of time-recording devices, as well as mechanisms for registering time. A special department is devoted to night watchmen's clocks. Clocks for any purpose are also made to order, and all kinds of watches are sold.

Second Large Order.

The Southern Boiler and Tank Works, Memphis, Tenn., has just filled its second order for the Muscle Shoals development, consisting of carbide furnaces aggregating approximately 1200 tons of special plate work. The shipment was to Nitrate Plant No. 2 at Sheffield, Ala. The first order had to do with the boiler plant there. This company has just completed some special work for the Cudahy Packing Co., the Southern Cotton Oil Co. and the Phoenix Cotton Oil Co., these refineries employing the electrolytic system now operating extensively in the oil industry of Oklahoma.

Uses Either Gasoline or Kerosene.

The Northwestern Steel & Iron Works, Eau Claire, Wis., is equipping the "Northwestern" engine used in its 1918 concrete mixers with

a twin service carburetor which permits the operator to use either gasoline or kerosene in the engine, as desired. The makers claim that this carburetor will effect a reduction in mixer fuel costs of one-third to one-half. There are two lead pipes from the storage tank, each with a shutoff valve, enabling the operator to draw either fuel when wanted. By a superheating attachment, which introduces gas from the muffler of the engine, the kerosene is volatilized to the proper degree for producing the maximum explosive power in the cylinder. This engine which is equipped with gravity feed from the fuel tank, is guaranteed by the makers to operate satisfactorily on kerosene when using the twin service carburetor.

Now in One Company.

It is announced that the adjoining properties and plants of the Lehigh Foundry Co. and the Lehigh Car Wheel & Axle Works, at Fullerton, Lehigh County, Pa., have been merged into one corporation, the Fuller-Lehigh Company, with headquarters and works at the same location. J. W. Fuller is president. Both companies have been under the same management for years. The combined properties have a frontage of more than a mile along the Lehigh River and the Lehigh Valley Railroad, and an extensive private trackage system connects all of the various buildings to facilitate their operation and the shipment of their products, which include chemical castings, special castings in green sand or loam, the Fuller-Lehigh pulverizer mill, lining plates for tube mills and ball mills, crusher repair parts, repair parts for pulverizer mills, car wheels and axles, sprocket and traction wheels, wire rope sheave wheels, pulverizer coal equipment, comprising dryers, crushers and furnace feeders. The works have enjoyed a long reputation for the high quality of their productions. The executive personnel remains unchanged.

Pneumatic and Electric Tool Reorganization.

The Independent Pneumatic Tool Co., incorporated in Delaware for \$3,000,000, represents the reorganization of the Independent Pneumatic Tool Co. of New Jersey, and the Aurora Machinery Co. of Delaware, both being owned by the same interests, the former representing the selling division for the Thor pneumatic and electric tools, and the latter the manufacturing department, which includes the manufacturing of Thor motorcycles and gasoline engines. The union of the two under one name is for business convenience. General offices are at 1307 S. Michigan Boulevard, Chicago, Ill. There are branches in several cities. The factory for pneumatic and electric tools is at Aurora, Ill., and the motorcycle and gas engine factory is at 361 W. Superior St., Chicago. John D. Hurley is president; Ralph S. Cooper, vice-president; Fletcher W. Buchanan, secretary, and Edward G. Gustafson, treasurer. John P. Hopkins is chairman of the board of directors, the other members of which include the officials of the company named here, besides James J. McCarthy, William A. Libkeman, Leonard S. Florsheim, Robert T. Scott and August Gatzert.

TRADE LITERATURE

Zelnicker's Latest.

Bulletin 241 of the Walter A. Zelnicker Supply Co., St. Louis, Mo., bearing date of April 29, is issued, listing some bargains in rails, cars, locomotives, etc. This publication is one of those snappy little folders characteristic of this organization, whose main office is 325 Locust St., St. Louis, Mo.

Miniature Direct Current Instruments.

Bulletin No. 44,017 of the General Electric Co. is descriptive and illustrative of miniature direct-current instruments, Type DM and DK-7. They are of the well-known D'Arsonval permanent magnet, moving coil construction, and are examples of fine design and high-grade work applied to very small instrument parts. Notwithstanding their limited dimensions, these instruments are described as being remarkably accurate.

They are especially for small panels, battery charging sets, automobile starting and lighting sets, electric vehicles and also general equipment for small direct-current installations.

Jokes Mingled With Rope Wisdom.

The Yellow Strand Joke Book is a clever little publication, issued by the Broderick & Bascom Rope Co., St. Louis, Mo. It is full of exceedingly amusing and well-told witticisms and anecdotes, which are interspersed with admonitions concerning the products of the company. Emphasis is laid upon the Yellow Strand wiresteel rope and other superior productions of these factories, one of which is at Seattle, the other being at St. Louis. There are offices in both of these cities, besides another in New York. A number of excellent illustrations are presented in the book, which is entertaining and instructive throughout.

Interesting to Concrete and Cement Users.

"Boss" high-speed, heavy-duty light-weight, self-oiling, Hyatt roller-bearing type concrete mixers, which also mix permanent mortar; pavers, hoists, back fillers and pumps, built of steel and guaranteed by the American Cement Machine Co., Inc., of Keokuk, Iowa, are described in Catalog No. 18 of that company, a handsomely illustrated publication of large pages and complete contents relating to the various products to which it is devoted. The company also makes grouters, material elevators, concrete carts, etc. Tables of specifications and capacities make the catalog very full and satisfying to all who may be interested.

To Preserve Concrete Floors.

A circular describing "Lapidolith," which the manufacturers say "makes concrete as hard as granite" has been issued by L. Sonneborn Sons, Inc., 262 Pearl St., New York. This is a chemical preparation for concrete floors which has been successfully used for a number of years, and the circular contains numerous illustrations of buildings occupied by important and well-known corporations, schools, hospitals and others which have their floors treated with it to prevent disintegration of the concrete. The makers say that it is easily applied to either new or old floors rendering them dustproof, wearproof and waterproof. The preparation is flushed on the floors. Its name is its trade mark.

Unloaders Save Time and Labor.

"Stock coal now with a John F. Godfrey, Junior," is the advice given on a circular issued by John F. Godfrey, Elkhart, Ind., which describes and illustrates his auxiliary unloader and conveyor, which he says can be operated by one man, and it handles all sizes of coal up to 50 tons per hour. It can be erected and operated at any angle from the railroad car bringing the coal. Mr. Godfrey also says that the use of his conveyor is the simplest, cheapest and most economical method of combating car shortage; it will help win the war by increasing the efficiency of coal cars. He also says it is always ready to do the work of a dozen men; it will load auto trucks and wagons rapidly. Electric power is preferable for running it, although other forms of power can be utilized.

About the Walworth Products.

The Walworth Log for April, published by the Walworth Manufacturing Co., Boston, Mass., Chicago and Kewanee, Ill., opens with an article by Howard Conoley, president, considering the war situation and general business conditions. The second article, which is illustrated, relates to the Briggs-Weaver Machinery Co., Dallas, Tex., besides which there is a lot of other good material, including a two-page group of pictures showing the eastern division works of the Walworth Company. The last article in the magazine describes the Walworth steel flag poles, which are made in from 20 to 100-foot lengths and occasionally on order even longer. This type of pole has a patented ball-bearing revolving, halyard top.

Aid to Saving Coal.

How to save coal is considered in Bulletin No. 41 of the Bailey Meter Co., 141 Milk St., Boston, Mass., the cover page of which is illustrated with a halftone cut showing the Bailey boiler meter, type 13, class 5. The bulletin says that the meter not only gives the rate of steam output, but it also shows whether or not this steam is being generated economically. It records on the same chart both the rate of steam flow from the boiler and the rate of air flow through the furnace, the former being recorded in red and the

latter in blue. It is observed that when the greatest possible economy is being obtained the two recording pens are together, and record the same reading at any rate of output. Full particulars, with reproductions of charts, are also presented in this publication.

Advantages of Steel Water Tanks.

On the first page of the April issue of The Water Tower, a quarterly publication issued by the Chicago Bridge & Iron Works, Chicago, Ill., is a fine illustration of a steel water tank erected at the naval training station, Great Lakes, Ill. Since the United States entered the war a year ago there have been about 50,000 sailors trained and sent to sea from this station, and the water tank erected by the Chicago company provides the occupants of the camp with liberal supplies of excellent water. The company also makes small tanks for private properties, including suburban residences, farms, etc. The advantages of steel tanks are shown by a couple of good pictures. Besides Chicago the company has works at Greenville, Pa., and Bridgeburg, Ont., Canada.

Culverts and Drains.

Contractors and others will be interested in a new bulletin issued by the Canton Culvert & Silo Co., Canton, O., relating to the "Acme" nestable corrugated "No-Co-Ro" metal culverts, "Duro" railway drains and other products from this plant. These are described as rust resisting and exceedingly durable. The drains, after being perforated, are regalanized by the hand-clipping process so that all raw edges are covered to absolutely prevent rusting. The ends of the culverts are triple reinforced. They are made from 8 inches to 6 feet in diameter. A table giving diameters, gauges, thicknesses, weights and water-carrying capacities is presented for the ready reference of purchasers. Several excellent illustrations show the application of these products to railroad and other construction.

Save Fuel by Stopping Air Leaks.

The Barrett Company has issued two bits of advertising matter relating to the merits of "Nox-Aer-Leak," which it describes as "a tough, elastic, adhesive cement, for preventing infiltration of air in brick boiler-settings." Attention is especially directed to the request of the United States Fuel Administration that all fuel users stop air leaks around their boilers, and also to the ability of this product to make easy a compliance with this request. Infiltration of air through boiler settings, it is remarked, frequently causes a loss as high as 25 per cent. in the efficiency of the coal used, and even though the loss be only 1 per cent., it is profitable to stop the leak. Full directions are given about applying the substance.

Grinding and Polishing Machinery, Etc.

Ball-bearing and plain-bearing grinding and polishing machinery manufactured by the Webster & Perks Tool Co., of Springfield, Ohio, is accurately, instructively and entertainingly described in a series of handsome bulletins which are combined in a booklet issued from this plant. Superior and clean-cut illustrations accompany the reading matter and complete tables present information as to dimensions, capacities, etc. A little more than three years ago the Webster &

Perks Tool Co., recognizing the increasing demand for ball bearings, and their application to other kinds of machinery, designed and built several sizes of grinding and polishing machines with this type of bearing. It says that so eminently satisfactory were the results obtained with these machines under the most severe conditions that it is now offering a very complete line of ball-bearing grinding and polishing machinery as shown in the booklet. Ball bearings save power and they last longer than other kinds; they also require less lubricant and the cost of renewals is materially less. Quick removal and renewal of ball bearings is another characteristic of these machines, but the company also recognizes the demand for plain or ballbearing type machines, and manufactures them as well, using in these bearings, it is stated, "an exceptionally high-grade anti-friction metal and ring oiling device to secure positive lubrication." Safety appliances and attachments of reliable types, developed by long experience, are also manufactured. Other products include threading machines, holding devices, nut-tapping machines, pointing machines, etc.

Book Reviews.

A Short Handbook of Oil Analysis. By Augustus H. Gill, S.B., Ph.D. Revised Eighth Edition. Pp. 209. Philadelphia and London: J. B. Lippincott Company. Dr. Gill wrote this book in 1897 primarily to meet the needs of his own classes, according to the preface of the first edition, but it was made generally public because of his belief that there was a demand for a concise manual of its kind, not to take the place of any of the existing books, but to serve as an introduction to them. It is divided into two parts, the first relating to physical and chemical tests and the second to derivation, description and examination of certain oils. There is also an appendix included in the volume. Only the more commonly occurring oils are considered and discussed, and it is assumed that the student is thoroughly familiar with the usual operations of volumetric and gravimetric analysis, and that he has attained some proficiency in organic chemistry. It is also observed that the changes in this latest edition include a description of the new MacMichael viscosimeter and a means of the reduction of viscosimetric readings to absolute units or poises. One or two minor tests for lubricating oils have been added. Besides the special tests, methods of analysis and the description of the special oils and greases have been revised where necessary, particularly in the case of the drying oils, and the methods of the analysis of edible and hardened fats and oils included, bringing the book quite up to date. The author has done his work thoroughly, and the volume will more than ever excellently and completely serve the purposes for which he wrote it. It is well printed on heavy paper and attractively bound in dark red cloth with gilt lettering.

and Thos. N. Greer. Offices will be in the People's National Bank Bldg.

Tex., El Paso.—Oil Exchange Bank, capital \$30,000, incptd. D. T. Cross, Pres.; P. S. Wolfe, Cash.

Tex., McAllen.—First National Bank, chartered, capital \$55,000. Incptrs.: P. A. Rogers, M. J. Rowe, Wm. McGhee, S. P. Metzger and A. Ledbetter.

Tex., Sherman.—The Farmers & Merchants State Bank, a new institution, has absorbed the American Bank & Trust Co.

Tex., Sherman.—Central State Bank, capital \$50,000, incptd. Barlow Roberts, Pres.; John A. Abernathy, Cash.

Tex., Turkey.—First National Bank chartered; capital \$10,000. Business has begun with John Sharp, Pres.; John E. Kelly, Cash.

Tex., Wallis.—Guaranty State Bank, capital \$30,000, incptd. Chas. Kaechele, Pres.; Ben Stern, V.-P.; Louis Postelovsky, 2nd V.-P.; J. F. Esterak, Cash.

Va., Norfolk.—York View Finance Corp. chartered; capital \$10,000. Geo. A. Peek, Pres.; S. B. Hutchins, Jr., V.-P., and W. P. Whitaker, Secy.-Treas.

W. Va., Charleston.—Merchants & Mechanics Bank, chartered, capital \$25,000. Incptrs.: Frank Lively, A. I. McCown, H. E. Nense of Charleston, and others.

W. Va., Wheeling.—German Bank of Wheeling has changed its name to the Wheeling Bank & Trust Co.

NEW SECURITIES

Ala., Birmingham (School).—City voted \$1,000,000 high-school bonds. Address City Commrs.

Ark., Greenwood (Road).—Commrs. Road Improvement Dist. No. 1 of Greenwood Dist., Sebastian County, Chas. E. Osborn, Pres., will receive bids until May 25 for \$70,000 of 6 per cent. bonds; dated May 25, 1918. Further particulars will be found in the Proposals Department.

Ark., Pine Bluff (Drainage).—Jefferson County Drainage Dist. No. 9, has sold to Francis Bros. & Co., St. Louis, \$35,000 of 6 per cent. \$100 and \$500 denomination bonds.

Fla., Bradentown (Bridge).—City voted \$45,000 of 6 per cent. 30-year \$500 denomination Bradentown-Palmetto bridge bonds. H. S. Glazier, Mayor; L. L. Hine, City Clerk.

Fla., Dade City (Paving).—City sold May 7 at par to Bank of Pasco County and Bond Trustees \$5000 of 5 per cent. 20-year \$1000 denomination bonds, dated March 1, 1918, and maturing 1938. Jas. E. Turner, City Clerk.

Fla., Fort Lauderdale (Park, etc.).—City voted \$35,000 of 6 per cent. 20-year \$1000 denomination bonds for park purposes and golf course. Dated May 1, 1918, and maturing May 1, 1938. Date for opening bids not decided. Address City Council, Geo. W. Hall, Clerk.

Fla., Fort Pierce (School).—Special Tax School Dist. No. 11, St. Lucie County has sold, at \$25,442, to Powell, Garard & Co., Chicago, \$25,000 of 6 per cent. 30-year \$1000 denomination bonds, dated April 1, 1918, and maturing 1928 to 1948, inclusive.

Fla., Jacksonville (School).—Baldwin School Dist., Duval County, votes June 11 on \$12,000 of bonds. Address School Board.

Fla., Miami (Sewer, Street, etc.).—City votes June 26 on \$50,000 sanitary sewer, \$30,000 street, \$30,000 bridge and \$30,000 municipal railway bonds. John W. Watson, Mayor, and W. B. Moore, City Clerk.

Fla., Pensacola (Certificates of Indebtedness).—City sold at \$10 premium to American National Bank, Pensacola, \$16,000 of 6 per cent. 3-year bonds.

Fla., Tampa (School).—School Board, Hillsborough County, Jesse E. Knight, Supt., will receive bids until 11 A. M. June 11 for \$80 bonds, Trappell Dist.

Fla., Titusville (School).—Brevard County votes May 24 on \$75,000 of 6 per cent. 25-year bonds Special School Tax, Dist. No. 4. R. J. Overstreet, Secy. County Board of Public Instruction.

Ga., Arlington (Ice Plant).—Bids received by J. A. Simmons, Town Clerk, until May 15 for \$11,500 of 5 per cent. ice plant and cold-storage system bonds.

Ga., Commerce (Light).—Bids received 10 P. M. July 1 by C. A. Goodin, City Clerk and Treas., for \$15,000 electric-light bonds; denomination \$500; dated July 1, 1918.

Ga., Darien (Funding, Road).—McIntosh County has sold \$30,000 funding and \$30,000 road bonds to J. H. Hillsman & Co., Atlanta.

FINANCIAL NEWS

FINANCIAL CORPORATIONS

Ark., Bald Knob.—People's Exchange Bank, capital \$150,000, applied for charter. B. F. Brown, Pres.; W. A. Bridges, V.-P., and H. C. Fones, Cash.

Ark., Camp Pike (P. O. Little Rock).—Army National Bank of Camp Pike, conversion of The Army Bank of Camp Pike, applied for charter; capital \$25,000.

N. C., Rocky Mount.—North Carolina State Fire Insurance Co., capital \$250,000, authorized to begin business. M. R. Braswell, Pres.; W. S. Wilkerson, Secy. and Gen. Supt.

Okl., Wister.—First National Bank applied for charter; capital \$25,000.

S. C., Dunbarton.—Farmers & Merchants Bank, chartered, capital \$30,000. B. F. Owens, Pres.; W. A. Dicks, V.-P., and A. W. Coleman, Cash.

S. C., Pamlico.—Bank of Pamlico commis-

sioned, capital \$25,000. Petitioners: G. J. Steele, A. A. Munn, D. B. Dargan and L. A. Hyman of Pamlico, and J. W. McCown and others of Florence.

Tenn., Centerville.—Bank of Commerce, capital \$15,000, incptd. by Arthur B. Ransom, Pitt Henslee, Watkins Crockett, H. H. Self and others.

Tenn., Collinwood.—Wayne County Trust Co. applied for charter; capital \$15,000. Petitioners: John H. DeWitt, Park Benjamin, Jr., Vernon Fuller and others of Nashville. Tenn. Business is to begin about June 1. For further information address E. H. Steinman, Collinwood.

Tenn., Lyles.—Bank of Commerce, capital \$15,000, incptd. by George Lovell, Lyles; Watkins Crockett and Arthur B. Ransom, Nashville, and others.

Tenn., Shelbyville.—People's Bank & Trust Co., authorized capital \$20,000. Incorporators: John D. Hutton, William P. Cooper, E. B. Maupin, R. Sandusky, H. P. Adams

Capital and Surplus
\$4,000,000



Total Resources
\$38,000,000

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Accounts of Mercantile Firms, Corporations, Banks, Bankers and Individuals Invited.

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Chas. Warner Smith, Vice-President.
Harry W. Davis, Secretary and Treasurer.
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CHAS. R. BURNETT, Vice-President

THE BANK OF ALABAMA

ENSLEY, ALABAMA

R. A. TERRELL - President

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Settlements and Purchases of Property.

Ga., Macon—(Sewer, Auditorium, etc.).—City votes in near future on \$55,000 sewer, \$55,000 city auditorium completion, \$50,000 hospital, \$25,000 tuberculosis camp, \$15,000 State fair grounds building. Glen Toole, Mayor.

Ga., Manchester—(Waterworks).—City votes June 14 on \$10,000 of 5 per cent. 30-year waterworks completion bonds. W. M. Moore, Mayor.

Ga., Mount Airy (School).—Town Council. W. E. Fort, Clerk, will receive bids June 3 for \$7000 of 5 per cent. 30-year bonds. Further particulars will be found in the Proposal Department.

Ky., Cythiana—(School).—Cythiana School Dist., Harrison County, voted \$65,000 of 5 per cent. 30-year bonds. Date of sale not determined. Address School Board.

Ky., Hopkinsville—(School).—Bids being received by Clerk Board of Education for \$14,000 of 25-year bonds Pembroke School Dist., Christian County.

La., Amite—(Road).—Tangipahoa Parish voted \$100,000 of bonds. Address Police Jury.

La., Rayne—(Water, Light).—City sold to J. L. Arlt, Austin, Tex., \$25,000 of 5 per cent. 1-10-year waterworks and electric-light bonds, dated Sept. 1, 1917.

Miss., DeKalb (Bonds, Loan Warrants).—Kemper County Suprvs., J. H. Harbour, Chancery Clerk, contemplate issuing about \$25,000 of bonds and from \$25,000 to \$40,000 loan warrants.

Miss., Iuka—(Road).—Tishomingo County rejected all bids received May 7 for the \$30,000 of Burnsville Road Dist. bonds; new bids to be asked. W. L. Ellege, Atty., Corinth, Miss.

Miss., Jackson (State Bonds).—Special dispatch to Manufacturers' Record says \$3,000,000 of 5 1/4 per cent. State funding and refunding bonds have been purchased at \$12,900 premium by a syndicate composed of Wm. R. Compton & Co. and Hibernia Bank & Trust Co., New Orleans. Theodore G. Bilbo, Governor.

Miss., Meridian—(Road).—Lauderdale County Suprvs. plan to sell at June 3 meeting \$20,000 of bonds Dist. 2.

Miss., Moss Point (City Note).—City awarded at par to the Pascagoula National Bank \$3500 of 6 per cent. \$500 denomination bonds to pay city note. C. M. Fairley, City Clerk.

Miss., Quitman (School).—Clarke County Suprvs., W. H. Foster, Clerk, offers for sale June 3 \$4500 Carmichael consolidated school bonds. Further particulars will be found in the Proposals Department.

Miss., Rolling Park—(School).—F. B. Boykin, Treas., Sharkey County, will receive bids until noon May 15 for \$25,000 of 6 per cent. 1-20-year 6 per cent. \$1000 denomination bonds Angulla Consolidated School Dist.

Miss., Vaiden—(Road).—Suprvs. Dist. No. 3, Carroll County, sold on May 6 at par, accrued interest and \$150,000 premium (purchaser to furnish bonds), to H. A. Moore, West, Miss., \$25,000 of an authorized issue of 6 per cent. \$500 denomination bonds, dated May 1, 1918, and maturing \$2000 each year, 1929-33; \$3000, 1934-37. G. F. Lee, Clk., County Suprvs.

Miss., Wiona—(Refunding).—City sold at a premium of \$75 to Bank of Commerce \$65,000 of 6 per cent. \$500 denomination bonds. Address W. F. Blackston.

Mo., Danville—(Road).—Montgomery County recently sold to Mississippi Valley Trust Co., St. Louis, \$45,000 of 6 per cent. 2-16-year bonds.

N. C., Burgaw—(School).—Pender County on May 8 sold at par and \$165 premium to C. W. McNear & Co., Chicago, \$15,000 of 6 per cent. 20-year \$500 and \$1000 denomination bonds of Atkinson School Dist.

N. C., Dallas—(School).—City voted \$40,000 bonds. Address School Board.

N. C., Greensboro (School).—Whitsett public school dist., Guilford County, voted \$10,000 of bonds. Address School Board.

The Board of Directors of the American Cotton Oil Co. on May 7, 1918, declared a semi-annual dividend of 3 per cent. upon the Preferred Stock, and a quarterly dividend of 1 per cent. upon the Common Stock of the company, both payable June 1, 1918, at the Banking House of Winslow, Lanier & Company, 59 Cedar Street, New York City, to holders of record of such stock at the close of business on May 15, 1918.

The Stock Transfer Books of the company will not be closed.

RANDOLPH CATLIN, Secretary.

Bids close May 25, 1918.

\$70,000 6% Bonds

Road Improvement District No. 1 of the Greenwood District of Sebastian County, Arkansas, will receive proposals for the sale of \$70,000 One 15 Serial 6 per cent. bonds on the 25th day of May, 1918, at the office of Chas. E. Osborn, Greenwood, Arkansas. A certified check for \$500 must accompany each bid, and any and all bids may be rejected by the Commissioners of said Improvement District. The bonds will be dated May 25, 1918, be delivered on or about the 1st day of July, 1918, with the approving opinion of such Arkansas attorney or Arkansas firm of attorneys as may be agreed upon by the purchaser and the said Improvement District.

Given this 1st day of May, 1918.
CHAS. E. OSBORN, President;
C. R. OWSLEY, Secretary;
JOHN S. McCORD,
Commissioners of Road Improvement District No. 1 of the Greenwood District of Sebastian County, Arkansas.

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N. R. P. C. O.

200

TIME CHECK

TIME

TIME

TIME

TIME

TIME

TIME

TIME

TIME

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TIME

N. C., Marion — (School). — Nebo High School Dist., McDowell County, voted \$20,000 of 6 per cent 20-year bonds; bids to be asked about July 1. Address N. F. Stepps.

N. C., Raleigh — (Road). — Wake County on May 7 sold at par and accrued interest to Well, Roth & Co., Cincinnati, \$40,000 of 6 per cent. 30-year \$1000 denomination bonds year bonds. Defeated: \$20,000 park bonds. Garner Road Dist.

N. C., Thomasville — (Funding, Street). — City offers for sale until 8 P. M. May 21 following 6 per cent. bonds: \$15,000 funding, maturing Apr. 1, 1920 to 1928, inclusive; \$8000 street, maturing Apr. 1, 1920 to 1927, inclusive. F. E. Yarbrough, City Clerk.

N. C., Wilmington — (School). — New Hanover County voted \$250,000 of 5 per cent. 50-year bonds; dated July 1, 1918. W. A. McGirt, Chmn., Board of Commrs.

Okla., Ardmore — (Water, Sewer, etc.). — City voted \$300,000 water supply, \$30,000 barn and storage-house, \$50,000 storm sewer, \$15,000 incinerating plant, \$75,000 sanitary sewer and \$100,000 water mains 5 per cent. 25-W. R. Roberts, Mayor.

Okla., Bennington (School). — School Trustees will not call bond election. (Recent report is error.

Okla., Chandler — (School). — Atty.-Gen. approved \$10,000 of Union graded school No. 1, Meeker Township, Lincoln County bonds.

Okla., Dewar (School). — City plans to vote on bonds for school costing probably \$15,000. Nothing definite before July. Mrs. Anna B. Coleman, Clerk, School Board.

Okla., Geary — (Water-works Extension, Sewer System). — Bids will be opened about May 15 for \$40,000 of 6 per cent. \$1000 and \$500 denomination water-works extension and improvement and sewer system bonds. Dated April 1, 1918; maturity, serial 1923 to 1943. L. E. Fraxel, Mayor, and C. F. Dyer, City Atty.

Okla., McAlester — (Water). — City plans to call election to vote bonds for acquisition of additional water supply, installation of filtration system and building two sewerage-disposal plants. Address The Mayor.

Okla., Okmulgee — (School). — Consolidated School Dist. No. 1 (Morris), Okmulgee County, awarded \$60,000 of 6 per cent. bonds to George R. Gilbert, Oklahoma City, at \$125 premium.

Okla., Quinton — (Water-works). — City will receive bids at any time for \$98,000 of 6 per cent. 25-year bonds, voted May 6. Sam Box, Mayor.

Okla., Shattuck — (Water, Light). — City voted \$55,000 water and \$20,000 light bonds. Address The Mayor.

Okla., Tulsa — (City Hall, Storage-house). — City Sinking Fund has purchased at par \$75,000 city hall and \$17,000 storage-house 5 per cent. bonds.

Okla., Waurika — (School). — Ringling-Cornish School Dist., Jefferson County, voted May 11 on \$10,000 of bonds. Address School Board.

S. C., Bishopville — (School). — Central School Dist. No. 7, Lee County, votes May 30 on \$4000 of 6 per cent. 20-year bonds, dated May 22, 1918. B. W. Segars, Chmn., Board of Trustees.

S. C., Greenville — (County Loan). — Greenville County, W. H. William, Supvr., awarded to the Farmers & Merchants' Bank, Greenville, the \$100,000 temporary loan, at 4 per cent.

Tenn., Memphis (Liability Bonds). — Bids received by C. C. Pashby, City Clerk, until 2:30 P. M. May 21 for \$500,000 of 4½ or 5 per cent. 20-year general liability bonds.

Tenn., Rutherford — (Electric Plant). — Date not decided for issuing bonds recently voted. H. H. Taylor, Mayor.

Tex., Abilene — (Reservoir). — Atty.-Gen. approved \$220,000 of 5 per cent. 10-40-year bonds recently purchased by Halsey, Stuart & Co., Chicago.

Tex., Austin — (Road). — The \$75,000 bonds recently voted by Travis County Road Dist. No. 1 are 15-30-year 5 per cent. Denomination \$500. Dated April 1, 1918. Address County Commrs.

Tex., Ballinger — (Road). — Runnels County votes May 11 on \$75,000 bonds. Address County Commrs.

Tex., Beaumont — (School). — Trustees of South Park Independent School Dist., L. R. Pietzsch, Reg. Sec., will receive bids until 2 P. M. May 24 for \$97,000 of 5 per cent. bonds, dated Apr. 14, 1918, and maturing serially \$2500 each year for 29 years. Denomination \$500.

Tex., Canton — (Road). — Van Zandt Coun-

ty voted \$100,000 Edgewood road bonds. Address County Commrs.

Tex., Centerville (Road). — Leon County, C. D. Craig, Judge, will offer for sale about June 1 \$30,000 of Road Dist. 1 and \$20,000 Road Dist. 5 bonds; interest 5 per cent.; denomination, \$1000. County also has ready for sale \$20,000 of 5 per cent 1-30-year \$1000 denomination bonds Road Dist. No. 7.

Tex., Cleburne — (School). — Johnson County school districts voted bonds as follows: Lone Star, \$6000; Island Grove, \$5000; Center League, \$3000; Crill Miller, \$4000. Address County Commrs.

Tex., Conroe — (Road). — Montgomery County recently voted \$100,000 bonds. Address County Commrs.

Tex., Corsicana — (Water-works). — City sold at par to the Corsicana National Bank and the State National Bank, \$400,000 of 5 per cent. bonds.

Tex., Decatur — (Road). — Road Dist. 1, Wise County, \$80,000 of 5½ per cent. 1-30-year bonds sold at par to Powell, Gerard & Co., Chicago.

Tex., Orange (School, Street). — City is about to offer for sale \$25,000 of street bonds. As soon as \$100,000 school bonds are approved by Atty.-Genl. they will be sold. B. F. Hewson, Mayor.

Tex., San Antonio — (School). — Atty.-Gen. approved \$32,000 of 5 per cent. 10-40-year bonds Bexar County Common School Dist. No. 41.

Tex., San Diego — (Courthouse). — Duval County has sold at par to L. C. Hamilton of Kansas City \$100,000 of 6 per cent. 10-40-year bonds.

Tex., Seminole — (School). — Blythe Public School Dist., Gaines County, votes May 20 on \$10,000 of bonds. Address School Board.

Tex., Sinton — (Road). — San Patricio County voted \$75,000 of bonds. Address County Commrs.

Tex., Wharton — (Road). — The \$60,000 of 5½ per cent. 30-year \$5000 denomination bonds Road Dist. No. 3, Wharton County, offered Apr. 22, were not sold; new bids received any time. W. G. Davis, County Judge.

W. Va., New Martinsville — (School). — Bids received 3 P. M. May 25 by Archie Marshall, Secy. Board of Education, for \$12,000 of 5 per cent. bonds Clay School Dist., Wetzel County; denomination \$250; dated Jan. 1, 1918; maturity 1930.

FINANCIAL NOTES

Alvin State Bank, Alvin, Tex., increased capital from \$20,000 to \$25,000.

First State Bank, Avalon, Tex., increased capital from \$10,000 to \$15,000.

Donley County State Bank, Clarendon, Tex., increased capital from \$50,000 to \$75,000.

First State Bank, Frankston, Tex., increased capital from \$10,000 to \$25,000.

First State Bank, Happy, Tex., increased capital from \$10,000 to \$12,500.

Blackwater Valley State Bank, Muleshoe, Tex., increased capital from \$10,000 to \$12,500.

First State Bank, Montgomery, Tex., increased capital from \$10,000 to \$12,500.

Farmers' State Bank, Perry, Tex., increased capital from \$10,000 to \$10,000.

First State Bank, Tuscola, Tex., increased capital from \$10,000 to \$12,000.

Guaranty State Bank, Waller, Tex., increased capital from \$10,000 to \$12,500.

Fidelity Trust Co., Knoxville, Tenn., will increase capital from \$100,000 to \$200,000.

Mercantile Bank & Trust Co., Savannah, Ga., increased capital from \$50,000 to \$150,000.

First State Bank, Dallas, Tex., increased capital from \$250,000 to \$400,000.

First State Bank, Carrollton, Tex., increased capital from \$20,000 to \$30,000.

Guaranty State Bank, Humble, Tex., increased capital from \$15,000 to \$25,000.

Commercial Bank of Estill, S. C., will increase capital from \$25,000 to \$50,000.

First State Bank, Tomball, Tex., increased capital from \$12,500 to \$16,500. R. W. Leslie, Cash.

Commercial National Bank, Washington, D. C., increased capital from \$750,000 to \$1,000,000.

Val Taylor of Uniontown, Ala., was elected president of the Alabama Bankers' Association at its annual convention last week at Birmingham. B. W. Pruitt of Etowah was elected vice-president and Henry T. Bartlett of Montgomery was re-elected secretary and treasurer. Next year the convention will be held at Montgomery.

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For myself, my corporation, or my firm, I pledge the prompt production and delivery of the largest possible quantity of material in our Departments that is or shall be required by the United States Government for the necessities of itself and its Allies, and agree that all other lines of our business shall be subordinated to this Pledge, and all this in accordance with the request of the War Industries Board.

In order to carry out the spirit of this Pledge, it is necessary to have the hearty co-operation of every employe.

The maximum prices at which most forms of steel products can be sold have been fixed by the Government authorities, so that this Works is now being operated practically as a Department of the United States Government.

The tonnage which can be produced each day, of course, depends primarily upon the workmen at the Furnaces, Mills and Mines. It is therefore the patriotic duty of every employe to report for work each day unless prevented by sickness or some other cause beyond his control; and while on duty to devote every energy to the efficient performance of his particular work.

In no other way can we produce the tonnage of steel required for shipbuilding, maintenance of railroads, manufacture of shells, and all the other uses for which steel is required in the prosecution of this great

WAR IN DEFENSE OF CIVILIZATION

Our sons and our brothers are baring their breasts to the foe on the battlefields of France, ready to make the supreme sacrifice for our beloved country. It is both our patriotic duty and our sacred privilege to do our part to see that not one of these lives is unnecessarily sacrificed because of lack of equipment which can be furnished through our labor.

Let each of us put our hands and hearts to our respective tasks in the spirit of the immortal Lincoln, as expressed in his matchless utterance on the Battlefield of Gettysburg:

"The world will little note nor long remember what we say here, but it can never forget what they did here. It is for us, the living, rather, to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us; that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion—that we here highly resolve that these dead shall not have died in vain; that this nation, under God, shall have a new birth of freedom; and that government of the people, by the people, for the people, shall not perish from the earth."

We, as officers of this Company, ask every employe to join us in this Pledge.

W. E. COREY, Chairman	A. C. DINKEY, President	WM. B. DICKSON, Vice-President	E. E. SLICK, Vice-President	D. BREWER GEHLY, Vice-President
JOHN C. NEALE, Vice-President and Gen. Mgr. of Sales Widener Bldg., Philadelphia, Pa.	H. D. BOOTH, Gen'l Supt. Nictown Works	J. C. OGDEN, Gen'l Supt. Cambria Steel Co.	H. A. WHITAKER, Gen'l Supt. Coatesville Works	

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More than 100,000 lbs. of wool produced annually within a 30-mile radius of the mill. Located 14 miles from railroad on good pike, with double daily automobile and auto-truck service. Terms, cash, or one-half cash; balance one year. Address No. 6005, care Manufacturers Record, Baltimore, Md.

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WANTED—Well advertised lines of heavy hardware to carry to the jobbing trade in Southern territory. Can furnish best of reference. Address No. 5057, care Manufacturers Record, Baltimore, Md.

MECHANICAL ENGINEER will negotiate with manufacturers of machines or power-house equipment, with a view to representing them in the South, with headquarters in North Carolina. Address No. 6006, care Manufacturers Record, Baltimore, Md.

WANTED—At once, Mfr.'s line for Ga., Ala. and Miss.; specialty of general line to sell to jobbers, direct to merchant; any above draft age; 10 years' road experience. W. P. Lambert, 804 Parkman Ave., Selma, Ala.

SITUATIONS WANTED

25 YEARS' EXPERIENCE in all kinds of building construction; have practiced architecture for the past 15 years; desire a position as superintendent, estimating, office manager, construction foreman, or any position in the building line or ship construction; have made a study of labor-saving systems and devices; best references; will go anywhere in the United States or accept position as traveling salesman for some responsible firm in the manufacturing line. Salary, \$300 per month. Address No. 5104, care Manufacturers Record, Balto., Md.

DO you want a representative in Savannah, Ga., the chief seaport of the South Atlantic. Information and references may be exchanged with a young man of business and executive ability, above draft age and married. Address P. O. Box 232, Savannah, Ga.

CIVIL ENGINEER. 26 years' experience building construction, municipal, mining and interurban railway engineering, desires managerial position where economy, initiative and system counts; now employed. Box 447, Welch, W. Va.

CHIEF ENGINEER, thoroughly conversant with the operation of steam-electric plants. Able to design or rebuild with a view toward economical operation. E. E. Webb, 5142 Fulton Street, Chicago, Illinois.

ELECTRICIAN, experienced in A. C. and D. C. construction and maintenance. Familiar with turbines and stationary engines, also telephone systems. J. B. Northrop, Fort Smith, Ark.

MEN WANTED

IF ACTUALLY QUALIFIED for salary between \$2500 and \$25,000, communicate with undersigned, who will negotiate strictly confidential preliminaries for such positions; executive, administrative, technical, professional, all lines. Not an employment agency; undersigned acts in direct confidential capacity, not jeopardizing present connections. Established 1910. Send name and address only for explanatory details. R. W. Bixby, 534-66 Niagara Street, Buffalo, N. Y.

WANTED—Traveling salesman for water meters in the Southern States; experience, age, and salary expected. Address No. 5103, care Manufacturers Record, Baltimore, Md.

MEN WANTED

PROMINENT CONCERN with established trade desires strictly comm. representative in Southern States east of Mississippi River to call on hardware, jewelry, sporting goods and pawnbroker trade selling established line of dog collars, pistol holsters, police billies, etc. A good line for the right man. Address No. 5101, care Manufacturers Record, Balto., Md.

ELECTRIC SALES MANAGER to take charge of stock of line material; also one good electric traveling salesman. Would like to have these men by June 1. St. Albans Electric Mfg. & Supply Co., St. Albans, West Virginia.

MANUFACTURERS' AGENT wanted to sell a line of high-grade specialties for a concern of thirty years' reputation. Liberal commission basis. The Monitor Oil Company, Cleveland, Ohio.

BOATS FOR SALE

SCHOONER FOR SALE—98 ft. keel, 22 ft. beam, 5½ ft. draught. Also one 12x14 Sutton marine engine. W. P. Kavanaugh, Bay City, Mich.

MACHINERY AND SUPPLIES

FOR SALE—1 Baldwin Locomotive, 30-ton, 1 Porter Saddle, 4-driver, 14-in. cyl. 1 80 H. P. Schofield Return Tubular Boiler, 1 60 H. P. Fire Box Boiler, 1 3-12 Beck Twin Engine, 1 Edger, 1 Sawmill, 8000 capacity, 1 Stave Mill, 1 Green River Pump, 1½-in. discharge, 2-in. lift, 1 Boiler, 10 H. P., 1 Sawmill, complete, 12,000 capacity. Box No. 8, Inglis, Fla.

FOR SALE—Complete six-ton daily capacity refrigerating plant; York machine, with ammonia receiver; Goulds Triplex pump and 15 H. P. motor with slide rails, 900 R. P. M., 230-volt, 2-phase, 60-cycle; induction motor; coils and pipe and tank. Price, \$1800. Value today, over \$3000. Val Fink Co., 147 Seventh Ave., New York City.

SECOND-HAND MACHINERY FOR SALE: 1 H. S. and G. high-pressure, 54"x16", horizontal, Tubular Boiler, built for working pressure of 100 lbs., 1 H. S. and G. single valve Engine, 13"x18", Class F, side crank, heavy duty, shaft governor, without board bearing separate, left-hand. Hubbard Lumber Co., Harlan, Ky.

250 H. P. Allis-Chalmers etc. compound non-condensing engine, direct connected to 200 K. W. Bullock D. C. generator, 240 volts, 125 R. P. M. Complete with switchboard. In good running order. A. Courchesne, El Paso, Tex.

FOR SALE—1 75 H. P. Standard closed feed-water heater, 1175 H. P. Excelsior open feed-water heater, Boiler-makers' bevel shears, 15 H. P. General Electric D. C. motor. Newsome Boiler Works, Leavenworth, Kans.

FOR SALE—Chambers brick machine with automatic cut-off and pug machine, 15-foot fan and heating coils for drying. T. L. Montague, 122 W. 8th St., Chattanooga, Tenn.

FOR SALE—Vulcanizing plant cheap. Haywood, model K, complete; good as new. Cost \$485 at factory; will take \$225 cash. Deming Vulc. Co., 113 W. Pine St., Deming, N. M.

FOR SALE. Up-to-date machinery in 75-bbl. flour mill. Liberty Mills, Roanoke, Va.

WIRE ROPE.—Immediate shipment standard sizes and quality. Send us your requirements and we will quote. B. L. Bevington Machinery Co., 555 Washington Boulevard, Chicago, Ill.

FOR SALE—45 H. P. International Tractor, also 2 Trailers; all practically new; cheap. Address Box 54, Edenton, N. C.

HOLT Caterpillar. 60-belt 40-drawbar horsepower, excellent condition for immediate service; \$1750 cash; snap. Miller Lumber Company, Millerton, McCurtain Co., Okla.

MACHINERY and SUPPLIES WANTED

ELECTRIC FURNACE WANTED—Second-hand or new, if for immediate delivery, suitable for making ferro alloys. Send complete specifications, detailed statement of condition and price. Address No. 5073, care Manufacturers Record, Balto., Md.

WANTED—Good second-hand drag-line machine, 1½ or 2-yd. bucket, 60 or 80 ft. boom, offer skids; immediate delivery. Vaughan Construction Co., Shawsville, Va.

WANTED—A second-hand 100 H. P. boiler to carry 125 lbs. steam. Must be in good condition and not have to be refueled. R. H. Etheredge, Saluda, S. C.

PROPOSALS

BOND ISSUES

BUILDINGS

PAVING

GOOD ROADS

More Southern Proposal Advertising Is Printed In The Manufacturers Record Than In Any Other Paper

Bids close May 28, 1918.

DEPARTMENT OF THE INTERIOR, Washington, May 7, 1918. Sealed proposals in duplicate will be received at this Department until 3 o'clock P. M. Tuesday, May 28, 1918, and then opened for lithographing and printing and for mounting 22,000 copies, more or less, of the General Land Office Map of the United States for 1918. At the same time and place proposals in duplicate will also be opened for photolithographing and printing 3000 copies, more or less, of each of the maps of the land States and insular possessions prepared in the General Land Office during the fiscal year ending June 30, 1919. Specifications as to character of the work, sizes of maps and quality of paper required will be exhibited to bidders or furnished on application. All proposals must be securely enveloped, marked "Proposal for United States Map," or "Proposal for State Maps," as the case may be, and addressed to the Commissioner of the General Land Office, Washington, D. C. The right is reserved to reject any and all bids, or to accept or reject any part thereof, in the discretion of the Department. E. J. AYERS, Acting Assistant Secretary.

Bids close May 31, 1918.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., May 2, 1918.—Proposals will be opened in this office at 3 P. M. May 31, 1918, for the construction, complete, of six additional buildings, water tank and wellhouse at the United States Quarantine Station, Savannah, Ga. Drawings and specifications may be obtained from the custodian at the station, or at this office, in the discretion of the Supervising Architect. JAS. A. WETMORE, Acting Supervising Architect.

Excavation Work

Foreston (Clarendon County, S. C.) Drainage District offers 200,000 yards of excavation, part of which is adaptable for small floating dredge, and part for land machine. Address COURTNEY CAMPBELL, Foreston, South Carolina.

Excavation Contract To Let

Contract 2 or 3 years' excavation for drag-line scraper, 2½-yd. bucket; good price paid for excavation; machine can be unloaded right at the work. Work ready to start now. Address

COLLINSVILLE COAL CO.,
General Delivery, Tulsa, Okla.

Bids close June 3, 1918.

\$7000 5% Bonds

An election was held in the Town of Mt. Airy, Ga., on December 30, 1917, for the purpose of floating \$7000 in 30-year bonds, drawing interest at the rate of 5 per cent., payable semi-annually, for the erection of a School Building. (Property valuation of town, \$200,000. No indebtedness.) Sealed bids will be received for the purchase of said bonds at the regular meeting of Town Council to be held on June 3, 1918.

Address all bids, etc., to
W. E. FORT, Town Clerk.

Bids close June 3, 1918.

\$4500 School Bonds

The Board of Supervisors of Clarke County, Miss., will offer for sale on the first Monday in June, 1918, \$4500 Carmichael Consolidated School Bonds. For particulars write W. H. Foster, Clerk of Board, Quitman, Miss.

Bids close May 22, 1918.

Paving Blocks

Sealed bids will be received until May 22, 1918, by the City of Goldsboro, N. C., for 125,000 3½" wire-cut lug blocks, f. o. b. cars Goldsboro. This material is for the first brick pavement to be laid in the city, and is intended for demonstration purposes prior to completion of plans aggregating a 40,000-yards paving program.

E. A. BECK,
City Manager.

Bids close June 1, 1918.

Road Construction

Bids will be received on Saturday, June 1, 1918, until 2 P. M., by the Highway Commission, District No. 5, Valden, Carroll County, Miss., for the construction of 30.0 miles of sand-clay roads.

Fifty thousand dollars available. A certified check for \$1000 to accompany each bid. Plans and specifications now on file at the office of the Chancery Clerk, Valden, Miss., and with W. C. Stowell, Constructing Engineer, Hazlehurst, Miss.

The right to accept or reject any or all bids is reserved.
J. W. WORD, Chairman,
Highway Commission, District No. 5.

Bids close May 24, 1918.

Road Construction

OFFICE OF THE STATE HIGHWAY COMMISSION,

Richmond, Va., May 13, 1918.

Bids will be received at the Clerk's Office, Hampton, Virginia, until 11:30 o'clock A. M. Friday, May 24, 1918, for the construction of a concrete road, approximately three and one-half (3½) miles in length, from Hampton towards Newport News, in Elizabeth City County, Virginia.

Plans and specifications on file at the Clerk's Office, Hampton, Virginia, and at this office. Specifications furnished on application to the undersigned.

A certified check for \$1000 must accompany each bid. The right is reserved to reject any or all bids.

G. P. COLEMAN,
State Highway Commissioner.

Bids close June 5, 1918.

Infirmary Buildings

The County Court of Monongalia County, West Virginia, invites proposals for the construction of the new infirmary buildings to be erected at Morgantown, W. Va.

The infirmary will have a capacity of approximately 110 inmates, and will consist of three connected buildings, the main building being 50x101, three stories and basement, and the two wings 34x106, two stories and basement, and to be constructed of brick, terra-cotta, steel and frame interior construction and cross walls, and stone, brick and terra-cotta exterior walls, with clay tile roof.

Drawings and specifications may be seen at the office of Elmer F. Jacobs, architect, No. 701 Fleming Building, Morgantown, W. Va.

General contractors may secure copies of the drawings and specifications upon application to the architect, accompanied by a remittance of \$50, \$40 of which will be refunded upon the return of the drawings and specifications.

Sealed proposals addressed to the undersigned and accompanied by certified check in the sum of \$3000, drawn in favor of the president of the County Court of Monongalia County, West Virginia, will be received up to 12 o'clock noon Wednesday, June 5, 1918. The right is reserved by the County Court to reject any or all bids.

THE COUNTY COURT OF

MONONGALIA COUNTY.

JOHN C. PRICE, President.

JOHN M. GREGG, Clerk.

Morgantown, W. Va., May 7, 1918.

Bids close May 20, 1918.

Bridge

Bids will be received by the Breathitt County Fiscal Court at Jackson, Ky., on May 20, 1918, at 1 P. M., for the taking down and the re-erection of the steel bridge at Haddix, Ky. The Court reserving the right of rejecting any or all bids.

J. WISEHAGINS, Judge.

Bids close June 3, 1918.

Bridge Construction

The Board of County Commissioners of Lenoir County, North Carolina, invite proposals for the erection and construction of a steel bridge over Bear Creek, Lenoir County, near the Town of La Grange, N. C. Said bridge is to be about 75 feet in length and 16 feet roadway, with concrete abutments. Bids to be opened Monday, June 3, 1918. For further particulars see or write D. W. WOOD, La Grange, N. C. No plans on file.

C. W. PRIDGEN,
Clerk to Board.

Bids close May 20, 1918.

Concrete Spillway

OFFICE OF COMMISSIONERS PUBLIC WORKS

Charleston, S. C., May 6, 1918.

Sealed bids will be received by the Commissioners of Public Works at their office 14 George Street, Charleston, S. C., until 4 P. M. May 20, 1918, for the construction of concrete spillway and reinforcement of earthen dam Goose Creek Impounding Reservoir, near Saxon Station, Atlantic Coast Line Railroad, 12 miles north of Charleston.

Approximate estimate of quantities: 5500 sq. yds. Stripping, 7730 cu. yds. Excavation, 8800 cu. yds. Embankment, 403 cu. yds. Reinforced Concrete, 943 cu. yds. Plain Concrete, 528 Round Piles, 13,700 lineal feet; 2784 running feet of 4-in. Sheet Piling, 10 to 24 ft. long; 10,000 feet Board Measure Timber Work in Rafters, 24,000 lbs. Reinforcing Steel and Expanded Metal, 1320 lbs. Bolts and Dock Spikes.

Plans, specification, contract and form of proposal may be obtained on application to the Commission, and a deposit of \$5, which will be refunded on the return of plans and specifications.

The Commission reserves the right to reject any or all bids or waive any informalities.

J. ROSS HANAHAN, Chairman,
Commissioners of Public Works.
JAMES E. GIBSON,
Manager and Engineer.

How Truscon Reinforced Concrete Meets War-Time Standards

Save Steel for the war industries by adopting reinforced concrete. Use the Truscon Reinforcing Products because they require the least materials. For instance, Kahn Bars combine main reinforcement and shear members in a single unit. Steel Floretyles save large masses of concrete materials. Hy-Rib cuts down the thickness of walls and roof.

Labor is saved by the Truscon Reinforcing Products because they are shop-fabricated, eliminating the labor of as-sembling on the job besides saving in other materials used with them. The fireproofness of the Kahn System of Reinforced Concrete has been demonstrated in many actual fires. The construction is sanitary, free from vibration and permits maximum daylighting, assuring greatest efficiency of operation in the completed building.

Truscon Reinforcing Products are carried continually in stock at our main plant, as well as in warehouses in various centers, assuring immediate shipment.

TRUSCON STEEL FLORETYLES

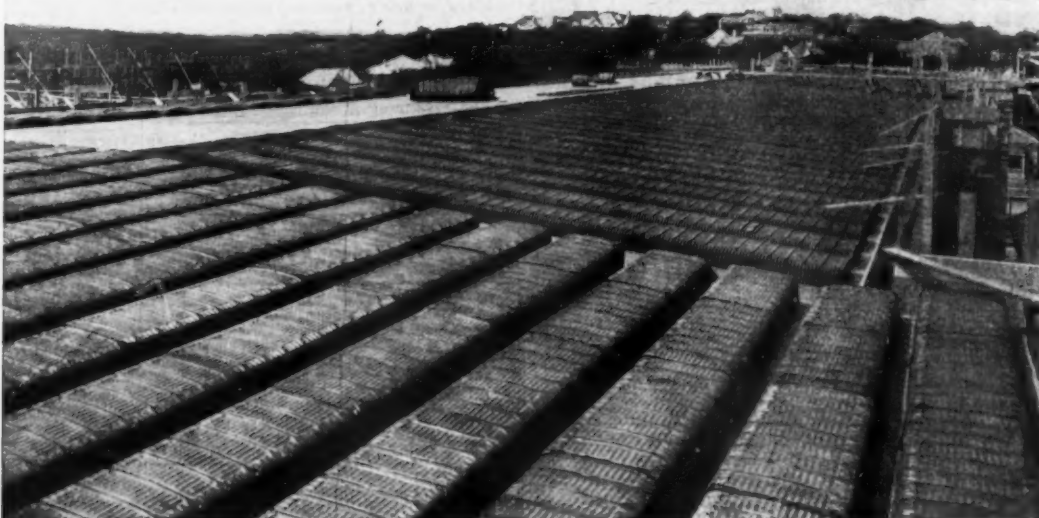
Steel Floretyles assure flat ceilings of wide span and light weight, economy in labor and materials, strength and accuracy in construction and speed in erection. This construction has been used everywhere in buildings of all types, and is one of the most popular systems of reinforced concrete construction.

TRUSCON STEEL COMPANY

(FORMERLY TRUSSED CONCRETE STEEL CO.)

YOUNGSTOWN, OHIO.

WAREHOUSES AND REPRESENTATIVES IN PRINCIPAL CITIES



Austin High School, Austin, Texas. D. R. Walsh, Architect. Van Horn-Shaw Constr. Co., Contractors. Steel Floretyle Construction.

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